

APPEARANCES

Commissioners (and their advisors) Present:

Carla Peterman, Lead Commissioner, Transportation
Tim Olson, her Advisor

Robert Weisenmiller, Chair

Staff Present:

Jim McKinney, Office Manager, Emerging Fuels & Technologies
Pat Perez, Deputy Director, Fuels & Transportation Division
Charles Smith, Project Manager, 2012-2013 Investment Plan

Advisory Committee Members Present: (via WebEx)

Janelle Beland, California Natural Resources Agency
Tim Carmichael, California Natural Gas Vehicle Coalition
Will Coleman, Mohr Davidow Ventures
Peter Cooper, California Labor Federation
Tyson Eckerle, Energy Independence Now
Steve Ellis, for Justin Ward (California Fuel Cell Partnership)
Bonnie Holmes-Gen, American Lung Association
Steve Kaffka, California Biomass Collaborative (Courtesy
of University of California, Davis)
Ralph Knight, Napa Valley Unified School District
Howard Levenson, CalRecycle
Robert Meyer, California Employment Training Panel
Jack Michael, Recreational Boaters of California
Simon Mui, Natural Resources Defense Council
Jananne Sharpless, Member at Large
John Shears, CEERT
Eileen Tutt, California Electric Transportation Coalition
Erik White, Air Resources Board, on behalf of Tom Cackette

Public Comment:

Kyle Jenke, Edeniq
Ken McKinney, Verizon
Nina Kisch, Pacific, Gas & Electric
Mira Inbar, Dow Kokam
Volker Amelung, Quantum Technologies
Lucy Negrete, Air Resources Board
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Public Comment: (Continued)

Martin Wahl (on behalf of Atul Deshmane)
Paul Camp, Indicom
Andreas Klugesdad, BMW
Jamie Hall, CALSTART
Michael Block, Electrification Leadership Council
John Clements, Kings Canyon Unified, Central Valley
Transportation Center (partner, City of Reedley)
Matt Miyasato, South Coast Air Quality Management District
Atul Deshmane, Whole Energy Fuels
Russell Teall, Biodico
Matt Horton, Propel Fuels
Rebecca Breitenkamp, Oberon Fuels
James Provenzano, Clean Air Now

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1 P R O C E E D I N G S

2 APRIL 19, 2012

9:05 A.M.

3 MR. SMITH: Good morning, everyone. My name is
4 Charles Smith. I'm the Project Manager for the 2012-2013
5 Investment Plan for the Alternative and Renewable Fuel
6 and Vehicle Technology Program.

7 I'd like to start with a few housekeeping
8 items. We are sitting in Hearing Room A. This
9 conference is being recorded through WebEx. For those of
10 you not familiar with this building, the closest
11 restrooms are located just over there, there's a snack
12 bar on the second floor under the white awning and,
13 finally, in the event of an emergency and the building is
14 evacuated, please follow staff to the appropriate exits.
15 We'll reconvene at Roosevelt Park, located diagonally
16 across the street from this building. Please proceed
17 calmly and quickly, again, following the employees with
18 whom you are meeting, to safely exit the building. Thank
19 you.

20 So with that, I'd like to turn the meeting over
21 to Chairman Weisenmiller and Commissioner Peterman.

22 COMMISSIONER PETERMAN: Good morning, everyone.
23 Welcome. Thank you for joining us. We've got a good
24 turnout here in the room and I'm sure we have many other
25 interested parties listening on the line. This is

1 Commissioner Carla Peterman. I'm Lead Commissioner on
2 Transportation.

3 I want to thank everyone, and all our members,
4 for joining us for the second meeting of the AB 118
5 Advisory Committee for the 2012-13 Investment Plan. Some
6 of you have been participants since the first plan was
7 developed, and I'd also like to welcome new members.
8 Today representing the California Natural Resources
9 Agency, we have Janelle Beland, thank you for joining us.

10 And I also wanted to just take a second and
11 provide a little bit of background context again about
12 what we're doing here as we move forward into the
13 details. AB 118, at approximately \$100 million, is the
14 main source of incentive funding in California for
15 Alternative Fuels and Vehicles. Both the Energy
16 Commission and Air Resources Board administer different
17 parts of the fund with slightly different guidance from
18 the law with clear objectives. The Energy Commission
19 intends to have a broader mandate under the law and is
20 expected to take an overarching holistic view of the
21 various options that are before us in the near term and
22 the long term.

23 The Energy Commission concludes that we face a
24 great challenge to balance job growth and economic
25 development with efforts to achieve greenhouse gas

1 emission targets, petroleum displacement goals, criteria
2 pollutant reduction requirements, and Bioenergy Action
3 Plan goals. With the 118 fund to address this challenge,
4 we feel it's important to have a balanced diverse
5 portfolio. As a result, you will see this approach
6 reflected in the Investment Plan before you.

7 I think it's also worth mentioning what we've
8 done so far, all of us together, with the Investment Plan
9 to date. The first tranche of funding, \$197 million,
10 invested from Fiscal Years 2008 and '09, and Fiscal Years
11 2009-10, verifies the direct benefits of 87 projects, as
12 of today, and project benefits in 2020 based on high and
13 low range of commercialization. These numbers show
14 direct employment of 5,400 jobs. Additional work is
15 needed to verify further supply chain opportunities, and
16 I don't expect this number to increase. We've also seen
17 a potential for significant petroleum displacement,
18 potential to achieve one to four percent of the goals for
19 these objectives so far with what we've invested.

20 So great work has been done and there's more to
21 do going forward. I'm particularly interested in: have
22 the near term opportunities and challenges changed? Are
23 there some areas where we should be investing now because
24 the opportunity and time is ripe? Are there some areas
25 where we can take a pause and see how current investments

1 are doing and wait for projects to materialize?

2 Once again, thank you to all for your
3 involvement and I'd also like to acknowledge Energy
4 Commissioner Jim Boyd, who is with us today as a member
5 of the public. He will continue to give us good insight,
6 I'm sure, and I welcome all his thoughts and comments.
7 And with that, I'll turn it over to Chair Weisenmiller
8 for any additional.

9 CHAIR WEISENMILLER: Thank you, thank you for
10 coming and participating today, certainly would like to
11 thank Commissioner Peterman for her thoughtful comments.

12 I think all of us realize the transportation
13 system is really at the nexus of our national security,
14 air, and jobs issues. And certainly the Governor's
15 recent Executive Order sort of highlights that for all of
16 us, the importance of diversifying our transportation mix
17 and capturing the unique opportunities we face now to try
18 to really make a fundamental difference there. So with
19 that, I again look forward to your participation today.

20 MR. SMITH: So at this point, why don't we have
21 the Advisory Committee members who are here in the room
22 and those online introduce themselves. Perhaps we can
23 start with Jan.

24 MS. SHARPLESS: Yes, Jan Sharpless, former
25 Chair of the Air Resources Board and former Energy

1 Commissioner.

2 MR. SMITH: Thank you.

3 MR. COOPER: Peter Cooper with the California
4 Labor Federation.

5 MR. MEYER: Robert Meyer with the California
6 Employment Training Panel.

7 MS. BELAND: Janelle Beland, Undersecretary at
8 California Natural Resources Agency.

9 MR. ECKERLE: Tyson Eckerle with Energy
10 Independence Now.

11 MR. MICHAEL: Jack Michael representing
12 Recreational Boaters of California.

13 MR. MUI: Simon Mui with Natural Resources
14 Defense Council.

15 MR. KNIGHT: Ralph Knight, Director of
16 Transportation, Napa Valley Unified School District.

17 MR. WHITE: Erik White with the Air Resources
18 Board on behalf of Tom Cackette.

19 MR. CARMICHAEL: Good morning. Tim Carmichael
20 with the California Natural Gas Vehicle Coalition.

21 MS. TUTT: Eileen Tutt with the California
22 Electric Transportation Coalition.

23 MR. KAFFKA: Steve Kaffka, U.C. Davis and
24 California Biomass Collaborative.

25 MR. LEVENSON: Howard Levenson, CalRecycle.

1 MR. SMITH: Is there anyone on WebEx? Any
2 Advisory Committee members participating via WebEx?

3 MR. COLEMAN: Will Coleman from Mohr, Davidow
4 Ventures.

5 MR. SMITH: Thank you, Will. Anyone else?
6 Okay. Well, moving right along, the next item that we
7 have on the agenda is a program status update, which will
8 be delivered by the Office Manager for the Emerging Fuels
9 and Technologies Office, Jim McKinney.

10 MR. MCKINNEY: Good morning, members of the
11 Advisory Committee, stakeholders, Commissioners, senior
12 staff, and all the staff in our program that really
13 helped make this thing happen. So, again, Jim McKinney,
14 I'm Manager of the Emerging Fuels and Technologies
15 Office, and we administer the AB 118 Program, and I'm
16 going to give you a brief update on where we are thus far
17 with getting the money out the door, as we like to say.
18 And, so, as a brief reminder, so the goal of the
19 Alternative and Renewable Fuel and Vehicle Technology
20 Program is to use public money to advance the development
21 of advance technology vehicles, fuel production, and fuel
22 infrastructure systems to help the state meet its climate
23 change policies and goals.

24 We also have as policy goals to reduce
25 petroleum dependence in our state. On average, we use

1 about 18 billion gallons of gasoline, ethanol, and diesel
2 every year in this state; it's a very big number, and our
3 goal is to reduce that, and also to promote economic
4 development. As Commissioner Peterman noted, there is a
5 very good jobs development aspect to our program.

6 Each year, the legislation directs us to
7 develop an Investment Plan that begins with staff
8 recommendations on how to allocate funding across all the
9 categories, that then goes through several rounds of this
10 Advisory Committee process and culminates in the
11 Commission adoption of the plan, which is scheduled for
12 May 9th of this year.

13 The role of the Advisory Committee is to serve
14 as, say, expert stakeholders for each of the fuel
15 categories and subject areas for which they are expert,
16 and have the public forum, public dialogue in how to
17 incorporate their feedback into the funding allocations.

18 In terms of going to the mechanics of our
19 program, we are now in Year 4 of a \$7.5 million program.
20 Thus far, we have allocated about \$362 million and about
21 \$207 million is locked into grants, and those are over
22 \$200 million for grants and interagency agreements.

23 We've been very busy since the beginning of
24 this calendar year, so we have \$175 million that we're
25 trying to get out in Fiscal '10-'11 and '11-'12 money. A

1 little over \$70 million of that we need to encumber for
2 the June Business Meeting, or by June 30th of this year,
3 and we are well on track to do that.

4 I'm going to talk a little bit about the
5 individual solicitations and grants. So one of the
6 innovative solicitation areas that we've done -- does
7 somebody else have control of this? There we go. So
8 Regional PEV readiness, you know, kind of following along
9 with the Governor's Initiative on Zero Emission Vehicles,
10 Electric Cars, Electric Trucks, we've been doing a lot of
11 work in that area for infrastructure development and
12 advance truck development. Our partners at ARB have been
13 managing the -- can we get the little notes not to clash
14 here, is that possible -- our partners at ARB who are
15 doing the vouchers for light-duty electrics and then
16 hybrid and all-electric trucks. So part of this, one of
17 the issues we have identified is the need for
18 coordination at the regional level on planning, how
19 should EVSE, or Electric Charging Systems be deployed,
20 what's the right balance between home, workplace, public
21 charging, other public areas? What are the permit
22 standards? This is proving to be a real issue in getting
23 the money to the ground and getting these chargers
24 installed as efficiently as possible.

25 So we have now awarded nine grants throughout

1 California, two regional MPOs, these are really good
2 stakeholder collaborations, and we think we're getting a
3 great return on investment because we're only putting in
4 \$200,000 for each one.

5 So we have about 27 million vehicles in
6 California, one million of those are trucks, medium-duty
7 and heavy-duty trucks, so it's about four percent of the
8 vehicle fleet. They use 16 percent of the fuel and
9 concurrently generate about 16 percent of the particulate
10 matter and criteria emissions and GHG emissions. So we
11 are putting a lot of effort and a lot of money, working
12 very closely with some advance stakeholders to get the
13 Advanced Technology packages into goods movement, waste
14 hauling movement, transit, and a lot of other areas.

15 We had \$16.9 million awarded this year, so 11
16 in projects for four applications, and we were
17 oversubscribed in this category, so we have 18 projects
18 that we're not going to be able to fund. And there's a
19 really really good mix of projects here, so a lot of all-
20 electric platforms for transit, medium-duty trucks for
21 goods movement, there's some very interesting hybrid
22 trucks, some of those are plug-in electric. We have one
23 LNG, I think a Class 7 or 8 tractor that's also a plug-in
24 electric, that's an innovative technology, and some good
25 movement on the gas, natural gas trucks, and we're very

1 excited to continue funding this part of the program.

2 Vehicle Buy-Down, this refers to what we call
3 gaseous fuels, so this is natural gas and a little bit of
4 propane. Since the last Advisory Committee meeting,
5 about 480 natural gas vehicles, primarily trucks, \$9.7
6 million, 60 propane vehicles, and 50 propane school
7 buses, and we're very pleased with that. You can see the
8 class break-outs here. And, really, all the major truck
9 manufacturers have platforms with either CNG compressed
10 natural gas, or liquefied natural gas to offer. That
11 market is booming. A lot of this has to do with the ever
12 declining price of natural gas and the increase in
13 supply, so we are very excited about this.

14 For Biofuels Production, we were also heavily
15 over-subscribed. On this one, we had 54 proposals
16 totaling nearly \$130 million. For round one, we're going
17 to award about \$19.5, that NOPA was posted late March, so
18 four of these are diesel substitute or what we call
19 biodiesel projects, three of those are going to be kind
20 of standard biodiesel, I guess you'd call it, kind of
21 second-generation, and they're all from waste-based
22 feedstock, so primarily the waste greases and oils
23 generated by the food processing industry here in
24 California.

25 We do have one renewable diesel project which

1 is really important for the future to kind of do away
2 with the dual or parallel infrastructure that's needed to
3 get biodiesel into the market.

4 We have our second cellulosic ethanol award.
5 The first of those went to Aemetis last year and now
6 Edeniq is getting another one, another algae-based
7 project, which is also a good harbinger for the future,
8 and then a large-scale biogas production facility based
9 on anaerobic digestion of MSW feedstocks.

10 For alternative fuel infrastructure, kind of
11 some interesting results this year. One of those is that
12 three of the funding categories, so natural gas,
13 biodiesel, and propane, all of those were undersubscribed
14 and, as you can see, we actually had zero applications
15 for propane. I think you'll see later in the program
16 presentation today this tracks with the staff
17 recommendations to ramp down, and perhaps zero out, some
18 of these funding categories. Nonetheless, there are some
19 really really good projects in here.

20 For Natural Gas Infrastructure, we're very
21 pleased, eight school districts applied, and I think most
22 of those will get an award. We have our first pending
23 award to a tribe, a Native American Tribe, and some good
24 RNG projects, as well. This NOPA, we hope to post later
25 today or first thing tomorrow morning, and I really want

1 to thank our staff for the great work they did crunching
2 through all those good proposals that came in. E85, we
3 got good response on that and I think we'll have some
4 strong packages to announce.

5 So the way we're doing several of these is that
6 we're separating out what we call round 1, so the money
7 that we have to encumber by June 30th of this year, those
8 all have to be CEQA-ready projects. We're well underway,
9 well on track to meeting that deadline. The balance of
10 those we call Round Two, we will process through those in
11 the summer and fall of the calendar year.

12 For manufacturing, we have \$10 million
13 allocated in '11-'12 money, and then we have another \$20
14 million allocated in this '12-'13 Investment Plan that
15 we're discussing today, so we received 15 proposals
16 totaling \$53 million, \$130 million proposed in match
17 funding, so you can see we're over-subscribed in this
18 category. It looks like another exciting mix of
19 manufacturing and retooling projects, primarily in the
20 electric drive category.

21 Hydrogen fueling infrastructure -- and I want
22 to acknowledge our colleagues at the Air Resources Board
23 and the major stakeholder, the Fuel Cell Partnership, for
24 the good work on this. We received five proposals
25 totaling 17 stations, \$23 million, and we expect to make

1 the NOPA announcement next week.

2 Workforce Development and Training, again, this
3 is a very important and successful part of our program.
4 The program awards that we've done thus far in, I think,
5 the January-February Business Meeting, total about \$1.25
6 million, which will cover about 1,500 trainees.

7 Emerging Opportunities, or sometimes called
8 Federal Cost-Share, for the fiscal year '10-'11 money,
9 about \$5 million of this, we think, will go to JCAP, the
10 Joint Center for Artificial Photosynthesis, that's a
11 combination Cal Tech, LBL, and I think U.C. Berkeley
12 consortia. We also have an exciting development with
13 what we call Air Force Base Electrification; the military
14 really continues to help drive the transition to
15 alternative fuels and electrification, that's very
16 exciting.

17 And then, for Program Support, so these are our
18 tech support contracts, MVNE, the Rand Corporation one
19 the award for our MVNE contract, and that work will start
20 coming in over the next 18 to 24 months. We are
21 developing major technical support contracts with U.C.
22 Davis Next Steps Program based at the Institute for
23 Transportation Studies, very very strong team of national
24 and world class researchers in all the subject areas we
25 work in. Similarly, with NREL, National Renewable Energy

1 Lab, I saw Mark Molina come in today. We're also doing a
2 major tech support contract with them. These do not
3 overlap, don't worry, these complement each other very
4 well and we're very excited to get such world class tech
5 support onboard.

6 We are continuing our work with the U.C. Irvine
7 Program and the street model, which is really important
8 for both hydrogen siting and it's been expanded to cover
9 the other fuel categories. So that concludes my
10 presentation and I think we can take some clarifying
11 questions, if any. If not, I'll turn the program back
12 over to Charles.

13 MS. TUTT: This is Eileen from Cal ETC. Just a
14 quick question on Slide 11. The -- you said the
15 infrastructure funds for electric vehicles have already
16 been encumbered, but there's no -- I don't really
17 understand, like how much was --

18 MR. MCKINNEY: Sure.

19 MS. TUTT: -- it's not as clear as the rest of
20 it.

21 MR. MCKINNEY: Yeah, and I also left out the
22 single biggest batch of infrastructure proposals that
23 came in.

24 MS. TUTT: Yeah, I mean, I saw all the
25 announcements and they're very impressive, but I don't

1 see it reflected here.

2 MR. MCKINNEY: Yeah. So we expect to -- and I
3 have to be a little circumspect, so we haven't posted the
4 NOPA yet, but we expect to have the NOPA total 15 grants
5 and that will be for, again, natural gas and LNG, fueling
6 stations, biodiesel, and then E85. Now, all of the EVSC,
7 all the Electric Charging grant, we actually got nearly
8 200 proposals in that subject area. A lot of them are
9 class 3 fast chargers, or level 3 fast chargers, and then
10 level 1 and 2. That is all '11-'12 money, so we have put
11 those aside and we will begin processing those as we
12 finish up the grants to encumber the fiscal year '10-'11
13 money. So does that answer your question?

14 MS. TUTT: You're just saying that there was no
15 '10-'11 money for Electric Vehicle Charging, but there
16 was obviously over-subscription in '11-'12, if I
17 understand it?

18 MR. MCKINNEY: Correct.

19 MS. TUTT: Okay, thank you.

20 MR. MCKINNEY: That's correct. Any other
21 clarifying questions? Then I'll give this back to
22 Charles.

23 MR. SMITH: Thank you, Jim. So, briefly, this
24 is our schedule of past, present and future for the 2012-
25 2013 Investment Plan. As most of you will recall, we

1 held our first Advisory Committee meeting on February
2 10th, we issued a revised staff draft that is the current
3 version of the document on April 5th, and in anticipation
4 of today's second Advisory Committee Meeting on April
5 19th.

6 We're going to need to do a quick turnaround to
7 post any final revisions to the Investment Plan by April
8 25th, that will allow us to get the meeting before our
9 May 9th Commission Business Meeting. This is a part of a
10 statute that requires us to have a completed Investment
11 Plan to the Legislature in time for the Governor's May
12 revise to the Budget.

13 The Revised Staff Draft is largely similar to
14 the original staff draft, but incorporates input that
15 we've received since that time. This includes roughly 30
16 submitted docket comments, ongoing meetings that
17 Commissioners and staff have held with various
18 stakeholders, as well as the input from 18 Advisory
19 Committee members and 30 other public comments at the
20 last Advisory Committee meeting.

21 The text provides updated information on our
22 recent solicitations, regulations, and other market
23 developments, and the revised staff draft also settles
24 the funding allocations for the 2012-2013 Investment
25 Plan. As you may recall, the original staff draft

1 provided several allocations that were "up to" amounts.
2 In this version, we have tried to solidify those funding
3 recommendations; however, they are still subject to
4 adjustment based on any final input and discussions that
5 we received here.

6 Moving now into the various sections of the
7 revised staff draft, we start with the fuel production
8 and supply updates. We have clarified the eligibility of
9 jet and aviation fuels to qualify for our fuel production
10 funding allocation. This is a very big category; it
11 includes roughly three billion gallons of jet fuel
12 dispensed in California annually, and much of that at
13 very specific sites, so it's easier to target higher
14 volumes.

15 We've also, in response to several comments
16 we've received, described the evaluation criteria for
17 biofuel production projects. These are based on the
18 evaluation criteria that we used in our recent biofuel
19 production solicitation, and there's a footnote that
20 links to that solicitation document, that can provide
21 much more specific information about the relative weight
22 of each scoring criteria. And finally, we've retained
23 the recommended \$20 million combined allocation, so,
24 again, for diesel substitutes, gasoline substitutes,
25 biomethane, and now renewable jet and aviation fuels.

1 Moving on to infrastructure updates, in the
2 Electric Drive Charging Infrastructure section, we've
3 incorporated a brief discussion on potential grid
4 impacts. Briefly, it's not a particularly significant
5 impact under the Commission's mid-case demand forecast;
6 we expect electric vehicles to account for perhaps half a
7 percent of annual energy need by 2020, and perhaps one-
8 tenth of a percent of daily peak need.

9 For Fast Charger Standards, we've also added a
10 discussion about the currently deployed CHAdEMO standard
11 for fast chargers, as well as the combo standard which is
12 under development by the SAE and other standard
13 organizations. Just to be clear, the Energy Commission
14 is supportive of either -- supportive of installations
15 that include either of these standards and preferably
16 both of these standards.

17 There is information on the Governor's
18 Executive Order for ZEVs and ZEV infrastructure. This is
19 related to the NRG Energy, Inc. agreement that was
20 reached which, as many of you know, provides roughly \$100
21 million for different types of charging infrastructure.
22 The Energy Commission will be coordinating with the NRG
23 Energy Company, as well as other sister agencies, in
24 making sure that the funding that we have provided so
25 far, and the funding that we continue to provide for

1 Electric Vehicle Charging Infrastructure, doesn't become
2 duplicative of the NRG projects. And for that category,
3 we retained the \$7.5 million allocation.

4 Moving to Hydrogen Fueling Infrastructure,
5 there is a little bit of updated information on the
6 station needs by 2014 and 2015. Briefly, we anticipate a
7 need for roughly 45 stations by the end of 2014 and
8 approximately 68 stations by the end of 2015. For
9 comparison, after our current hydrogen infrastructure
10 solicitation is completed, we will likely have perhaps 31
11 to 37 stations publicly available.

12 We've also incorporated an emphasis on O&M
13 funding for hydrogen infrastructure stations, in addition
14 to upfront capital cost, and we have retained the
15 original \$11 million funding allocation. Still in
16 infrastructure, for E85, as Jim may have mentioned, we
17 have already funded roughly 85 E85 fueling stations
18 around the state. These are proceeding slowly, but
19 steadily.

20 We have also allocated an additional \$10.1
21 million in the current infrastructure solicitation for
22 E85 stations. And given these investments, as well as
23 the ongoing concern over the per gallon cost differential
24 between E85 and gasoline, we've provided a limited amount
25 of funding for E85 filling stations in the '12-'13

1 document.

2 For Natural Gas Fueling Infrastructure, again,
3 we see a somewhat slower roll-out of previously funded
4 stations, as well as an emphasis on support for vehicle
5 deployment has led us to revise our allocation from up to
6 \$2.5 million to about \$1.5 million.

7 For Propane Fueling Infrastructure, in the
8 previous Investment Plan, this was originally funded as
9 targeting a specific need; however, as Jim pointed out,
10 we didn't receive any proposals for propane fueling
11 infrastructure in our recent solicitation, so we'll be
12 discontinuing funding for that category until we can
13 identify more specific needs.

14 So these are the funding allocations for '12-
15 '13. We are, of course, open to revisiting and
16 reassessing such needs as we begin development of the
17 2013-2014 Investment Plan.

18 Moving on to Vehicles, and starting with
19 Natural Gas Vehicles, there were not any substantive
20 revisions in that section of the document. Propane
21 vehicles, as Jim mentioned, we've had a slightly slower
22 demand for propane vehicles than we have for natural gas
23 vehicles, and so we have revised the allocation from up
24 to \$4 million to a more concrete \$2 million funding
25 allocation.

1 For Light Duty Plug-In Electric Vehicles, we
2 have included updated information on the Air Resources
3 Board's Clean Vehicle Rebate Program, which provides
4 vehicle incentives to the consumer for these types of
5 vehicles. The ARB issued a staff discussion document
6 earlier this month for their development of their 2012-
7 2013 funding plan, similar to our investment plan. It
8 anticipates an allocation ranging perhaps from \$13 to \$17
9 million and, while that is significant, it may not
10 necessarily be sufficient to meet the number of light-
11 duty plug-in electric vehicles that are expected over the
12 course of the coming year. So we are in ongoing
13 collaboration with the ARB on the relative demand and
14 funding needs for the Clean Vehicles Rebate Program.

15 Moving to Medium- and Heavy-Duty Advanced
16 Technology Vehicles, and focusing first on deployment,
17 again, we are in ongoing collaboration with the ARB on
18 the demand and funding needs of the HVIP, or Hybrid and,
19 now, Zero Emission Vehicle and Truck Incentive Program.
20 In the staff discussion document, as I mentioned that ARB
21 released, there is some leftover HVIP funding from
22 previous fiscal years and the ARB will also be providing
23 a higher incremental incentive for zero emission
24 vehicles, which is encouraging as we've seen a lot of
25 demand for those kinds of vehicles to be not just

1 demonstrated, but deployed. The ARB staff discussion
2 document includes a range of \$5 million to \$11 million
3 for the HVIP and, so, again we will be in ongoing
4 collaboration with the ARB in the coming days and weeks,
5 months, on demand and funding needs for the HVIP.

6 To Demonstration Projects, we have provided
7 updated information on our recent solicitation in this
8 area, which Jim briefed you on. We've added an emphasis
9 on the projects that we are especially interested in,
10 those being drayage and goods movement vehicles, and we
11 have increased the funding allocation to \$4 million.

12 Moving on to Emerging Opportunities, in this
13 section, we provided updates in the form of the
14 identification of potential projects. Perhaps you might
15 recall at the last Advisory Committee meeting, we were a
16 little concerned about the difficulty in both identifying
17 and providing funding for projects under this category.
18 Since then, we've had some good opportunities arise in
19 terms of Federal cost-sharing projects, so there were two
20 energy innovation hub projects released by the Department
21 of Energy, Federal Department of Energy, the first being
22 for the Fuels for Sunlight Project, which is going to be
23 covered by the Joint Center for Artificial Photosynthesis
24 that Jim mentioned. Additionally, there is another hub
25 project that the DOE is planning to fund for batteries

1 and energy storage that we'll be paying close attention
2 to.

3 We have the U.S. Air force Base Vehicle
4 Electrification Projects to look forward to, as well as
5 Vehicle to Grid Demonstration, and we also have an
6 ongoing interest in developing perhaps a small grants
7 program. For those of you familiar with our PIER Program
8 at the Energy Commission, they have a small grants
9 program of their own that has been quite successful, and
10 so we might look to emulate that.

11 So given these identified opportunities, we've
12 increased the funding allocation from \$1.5 million to
13 \$3.5 million. For manufacturing and workforce
14 development training, there weren't any significant
15 revisions to the manufacturing section retaining the
16 original funding allocation of \$20 million. In the
17 workforce development and training section, we've
18 provided a summary of our work with community colleges,
19 as well as updated recent activities with the Employment
20 Development Division and Employment Training Panel, and
21 retained the original funding allocation of \$2.5 million.

22 The final category of the Investment Plan,
23 Market and Program Development, we're continuing to
24 assess the need for sustainability studies, however,
25 we're not proposing any funding for the next fiscal year,

1 but this will be something that we continue to look at.

2 We've retained the \$3 million allocations for
3 both regional planning efforts, similar to our regional
4 PEV planning, as well as a \$3 million allocation for
5 establishing and/or supporting Alternative Fuel and
6 Vehicle Technology Centers.

7 In the Investment Plan, we have essentially
8 zeroed out funding for Technical Assistance and
9 Measurement Verification and Evaluation efforts, however,
10 those aspects of the program can and will be continued to
11 be funded by a smaller amount of funding that is provided
12 to support the program, in general. It's separate from
13 the Investment Plan, \$100 million.

14 Finally, the Future Steps for this Investment
15 Plan, obviously the May 9th Business Meeting is our big
16 target. Once the Investment Plan is adopted, we will be
17 looking at funding implementation. This includes
18 completing the currently scheduled solicitations and
19 grant agreements. We will be providing backfill and
20 funding for existing solicitations using 2012-2013
21 funding where appropriate, and also where appropriate we
22 will be issuing new solicitations, as outlined in the
23 Investment Plan.

24 Looking at little further down the line, we
25 have the next Investment Plan update for 2013-2014 and,

1 just so you know, we have the same deadlines, that is, a
2 draft to the Legislature in time for the Governor's
3 January Budget, and a final adopted version in May, but
4 this time we will have a longer lead time than we did for
5 the 2012-2013 Investment Plan.

6 The final slide is just the Funding Summary
7 Table, as outlined in my presentation. So with that, I
8 will turn the meeting over to Commissioner Peterman and
9 Chairman Weisenmiller.

10 COMMISSIONER PETERMAN: Well, I just assume you
11 will ask if there are any questions, or I'll let Pat take
12 the lead on this and I'm happy to chime in, as needed.

13 MR. PEREZ: Good morning to all of you. I am
14 Pat Perez, the Deputy Director for the Fuels and
15 Transportation Division. So at this point in time, we
16 welcome your comments.

17 And I think, to maybe organize and structure
18 your comments today, and I'm addressing the much valued
19 Advisory Committee, is that perhaps we can run through
20 the categories up here and kind of focus our comments.
21 And my only suggested change in terms of following that
22 order is let's leave the Emerging Opportunities at the
23 end of the discussion because I think that's a good segue
24 as we move into public comment, which I know there's many
25 parties here today that want to talk about their

1 individual projects which would fit under that emerging
2 opportunities category.

3 COMMISSIONER PETERMAN: And I would just offer
4 one comment before we start walking through the proposed
5 scheduled Investment Plan. You'll note that all the
6 numbers are firm here, except for two categories where
7 you're still in "up to" and that's the Light-Duty PV
8 Incentives, and the Medium- and Heavy-Duty BEV
9 incentives. This is an area, obviously, where we've been
10 coordinating and collaborating with ARB, as was mentioned
11 by Charles. We're still in discussions with ARB about
12 how much is needed, and support from the Energy
13 Commission for those funding categories in this
14 investment cycle. If we do not fund those categories up
15 to the four and up to the five as noted, then we will be
16 allocating some of that money to other categories.

17 We've already heard a lot of interest about
18 what categories can use increased funding, we appreciate
19 that, mostly you probably think all of them, a logical
20 one, for example, however, with the HVIP program, if we
21 do not fund up to \$4 million, would be the heavy- and
22 medium-duty demonstration category, for example. So I
23 just wanted to highlight that, as some of you might have
24 questions about that, but there will be firm numbers in
25 the plan that comes out next week.

1 MR. PEREZ: Okay, thank you, Commissioner. And
2 one thing I'd also like to remind parties, we have a
3 number of outstanding solicitations that we have yet to
4 release Notices of Proposed Awards, and therefore we
5 cannot at this point in time discuss the merits and
6 what's going on with those particular solicitations, for
7 example, hydrogen, we have not yet released the Notice of
8 Proposed Awards, so I just wanted to share that with the
9 group.

10 At this point, I'm going to open it up for
11 comments from the Advisory Committee, beginning with the
12 Alternative Fuel Production Recommendations in the
13 report. Mr. Carmichael.

14 MR. CARMICHAEL: Good morning. I actually had
15 a -- before we get to this table, I had a clarifying
16 question on Jim's presentation. I understand that
17 there's a whole bunch of Notice of Proposed Awards about
18 to come out, I also understand that there are some
19 solicitations that still haven't been put out, but what
20 I'm curious about is, today, are there funds from
21 previous plans that went through a solicitation process
22 and that are leftover, if you will, that you have not yet
23 allocated to a new solicitation or a new investment idea?
24 So I know we're talking about a new \$100 million today,
25 but I'm talking about money that was previously approved

1 that may be available, I guess.

2 MR. MCKINNEY: So the short answer, Tim, is
3 there is no large pot of free money under the table that
4 we're going to pull out at a future date. All the money
5 has been allocated. For the '10-'11, or, actually the
6 '09-'10 funding cycle, there is one last grant to Aemetis
7 Biofuels for a cellulosic processor, we're finishing that
8 up, they've got CEQA compliance, we'll get that on the
9 June Business Meeting. For the '10-'11 category, as I
10 tried to explain, and I apologize if it wasn't clear,
11 some of the alternative fuel infrastructure categories
12 were undersubscribed, so there is between \$2 and \$3
13 million there for us to reallocate. In the Program
14 Support area, there is some leftover money there, a
15 couple million dollars, so that's it in terms of money
16 that has been allocated in previous Investment Plans and
17 identified in solicitations, but not fully subscribed in
18 a grant or an interagency agreement.

19 MR. CARMICHAEL: So, best case scenario, maybe
20 \$5 million?

21 MR. MCKINNEY: Best case. I would say closer
22 to \$4 million.

23 MR. CARMICHAEL: Thank you very much.

24 MR. PEREZ: Thank you. Eileen Tutt.

25 MS. TUTT: Well, actually, I'm sorry, I thought

1 we were already at Alt Fuel Infrastructure, but are we
2 still on production?

3 MR. PEREZ: Still on Alternative Fuel
4 Production. We'll move down the list here. So I wanted
5 to first give everyone an opportunity to comment on that
6 first funding category and what we're proposing. Mr.
7 Levenson.

8 MR. LEVENSON: Howard Levenson from CalRecycle.
9 First of all, I want to thank the Commission for
10 continuing to collaborate with us and not just through
11 this Advisory Committee, but also through our staff's
12 involvement in some of this on the biomethane. Not
13 surprising, I have one comment on this table, the primary
14 comment is that we still would prefer to see a separate
15 line item for pre-landfill biomethane production, this is
16 a key component of our efforts at CalRecycle under a new
17 statute, and AB 341 to get a 75 diversion from landfills
18 on a statewide basis, and it's also a key part of our
19 efforts under the AB 32 Scoping Plan to expand the
20 anaerobic digestion infrastructure in the state for GHG
21 reductions. So I understand the Energy Commission's
22 desire to fund the highest scoring proposals in this
23 category, as a whole, but we would still prefer to see a
24 separate line item on that.

25 Just a couple of other comments that I can get

1 through quickly on the evaluation criteria, the way they
2 are written up in the plan. There is a statement about
3 biomethane production having to utilize pre-landfill
4 waste-based sources. That's in a paragraph that
5 describes the last solicitation, I'm sure it's the intent
6 to continue that, but it would be good to make that more
7 explicit in the plan and also to maybe consider some of
8 the feedstock criteria, the scoring criteria that there
9 be points specifically for pre-landfill waste-based
10 sources. The other two comments that I want to make are
11 just procedural ones. Last year in the discussions about
12 last year's plan we talked about the idea of a two-phased
13 proposal process, a pre-proposal idea to speed things up,
14 and I think that's still worth having some discussions
15 on, would make things a little easier for project
16 proponents, and I think for everyone to help get through
17 that process. And then -- dreams -- to have more time to
18 review the proposals -- I keep trying. But my primary
19 comment is about the separate line for the pre-landfill
20 biomethane. Thank you.

21 MR. MCKINNEY: And Jim McKinney here, and if I
22 could say a few words to that because I know we had a
23 very good discussion both from yourself and then Tom
24 Cackette of the Air Board, at the last Advisory Committee
25 Meeting. And one of the things we're finding is that the

1 feedstocks available for biofuels production, advanced
2 biofuels production in California, they're really
3 starting to merge across lines, so there's multiple
4 feedstocks that are going to be used for anaerobic
5 digestion, but then also for gasification. A lot of
6 things that we thought were only suited for cellulosic
7 ethanol production are now available for gasification at
8 a more cost-effective technology. So there is a lot of
9 blurring of what used to be fairly bright lines between
10 how a feedstock matched up with its processing
11 technology. As those merge over, that's been the primary
12 staff justification for putting everything in one pot.
13 There was some concern expressed by Mr. Cackette at the
14 last meeting that we needed to have kind of a separate
15 line item, more precise criteria for biodiesel, so as
16 you've seen from the notebook of the top three scoring
17 projects were, in fact, biodiesel projects. So they won
18 on their own merit. So, anyway, that's the staff
19 rationale for this approach, but I appreciate your
20 comments.

21 MR. PEREZ: All right, thank you, Jim. Mr.
22 Carmichael.

23 MR. CARMICHAEL: Thank you. So if we could
24 turn to page 18 and 19 of the plan, the first point on
25 page 18 on the table 3, I just want to note that, based

1 on the ARB and CEC's assessment through the LCFS,
2 landfill and dairy gas feedstocks produce compressed
3 natural gas with a very very low GHG or carbon number.
4 That's my set-up to page 19, the last line of the first
5 paragraph. As you know from our written comments, as you
6 know from testimony from Chuck White, the Natural Gas
7 Vehicle Coalition is fully supportive of this group, this
8 agency, prioritizing pre-landfill biomethane projects --
9 favoring them, giving them bonus points. What we take
10 exception to and still want to encourage you to
11 reconsider is the current proposal which gives the
12 opportunity for a good landfill project to be considered
13 in this mix. Don't change any of your criteria as far as
14 how you evaluate these projects other than, you know,
15 precluding landfill projects from being considered in the
16 mix. And I've said this at the last meeting, there are
17 only two in the state today, there are only two projects
18 in the state today, taking landfill gas into
19 transportation use. This is not a well developed
20 industry, or mode of fuel development yet. CEC has
21 supported it, but it's still very nascent. And I just
22 want to encourage the Commission, the staff and the
23 Commissioners, to remove that prohibition, that
24 preclusion, and let a landfill -- if somebody puts
25 forward a good landfill project in California, let it

1 compete. Thank you.

2 MR. PEREZ: All right, thank you, Jim. Mr.
3 Kaffka.

4 MR. KAFFKA: Steve Kaffka. I want to get back
5 to a bit of the previous discussion and Jim McKinney's
6 and Howard's comments. I think it's important to keep in
7 mind that, as biomass materials are assembled and then
8 processed, a number of products can be made from them,
9 and may well be made from them at the same facility.
10 That would include some type of transportation liquid
11 fuel, there may be a biogas produced, as well. So it's
12 important, I think, in perhaps setting out a separate
13 line for biogas that we also retain the capacity to
14 respond to these innovative integrative biorefinery
15 proposals that will generate numbers of products, perhaps
16 not even just fuels, but also feedstock chemicals and
17 other things that have significant greenhouse gas
18 reduction potential. And I think we need to -- this
19 program, in particular, what's great about AB 118, is
20 that it really supports innovation, and I think it's
21 important to keep that in mind.

22 MR. PEREZ: Okay, thank you. Okay, all right.

23 MR. SHEARS: John Shears. I just wanted to
24 follow-up because it was near the end of Charles'
25 presentation and then Tim sort of teed it up in terms of

1 just asking about the remaining balance of funding, and I
2 just wanted to get a little more clarity in terms of how
3 that money plus, you know, the conceptual (indiscernible)
4 plan work to deal with the backfill issue, so if we could
5 get a little more elaboration on how the backfilling
6 might work, given what's in the current table plus the
7 remaining under-funding that could be brought forward
8 into the new cycle.

9 MR. MCKINNEY: So Jim McKinney here. So the
10 notion of backfilling, or we used to call it head room,
11 is that for solicitations where there's a heavy level of
12 over-subscription, so many more proposals than we can
13 fund, what we've done historically is go back through
14 those and then use, say, future fiscal year money and
15 fund those projects that passed and had good scores and
16 were meritorious without releasing a new solicitation.
17 For the current round of solicitations, for some of
18 those, it may be appropriate, for others I think we want
19 to look at them and make sure that the solicitation was
20 really focused the way we intended. So, for example,
21 with the medium- and heavy-duty advanced technology
22 demonstrations, we opened it fairly broadly. We did not
23 get as many awards, any goods movement drayage area, as
24 we were anticipating, so that's one thing that we want to
25 think about. There is some really innovative off-road

1 vehicles excavator hybrids in there, that caterpillar
2 one, but for some of the rest of them. So that's the
3 type of thought process we go through, John.

4 COMMISSIONER PETERMAN: And I'll just also add
5 that we'll be looking at each solicitation independently,
6 each one fundamentally has some head room, to see
7 whether, as Jim pointed out, it is the solicitation the
8 Commission would like to offer in this '12-'13
9 opportunity. We want to take advantage of the work
10 that's already been done, but also not tie ourselves
11 necessarily to those existing solicitations.

12 MR. PEREZ: Okay, Bonnie Gen-Holmes -- Bonnie
13 Holmes-Gen.

14 MS. HOLMES-GEN: I had a couple of comments. I
15 -- we did send a joint letter from several advisory
16 committee members in and asked for more specificity on
17 the evaluation criteria for this category, and I
18 appreciate that you do have some more language in here
19 about using the evaluation criteria from the
20 solicitation, but I think it would be helpful to have a
21 little more -- a clearer idea of what level of greenhouse
22 gas reduction that we're trying to achieve from this
23 category and more clearly how it ties up to our long term
24 goals to reach our 2050 greenhouse gas reduction goals.
25 It would be helpful to have a little more clarity about

1 that. And then, there is some discussion about the
2 category -- about the types of vehicles -- the types of,
3 I guess, categories where we're using these fuels, and I
4 do think that it would be helpful to do anything we can
5 to try to encourage applications from the heavy-duty
6 sector. And it does seem that this is an area where we
7 really need to have these kinds of innovative advanced
8 biofuels used and there are limited options, and so I
9 just would love to hear more discussion about how we can
10 encourage projects within those categories -- heavy-duty
11 trucking, aviation, shipping, those heavy-duty
12 categories.

13 MR. PEREZ: Okay, thank you. I would also like
14 to reach out to members who may be participating via
15 Webcast -- oh, we do, okay, thank you.

16 MR. MUI: Simon Mui. First off, thank you,
17 Commissioners, and especially staff, on the hard work
18 here, and providing some updates here, as well as I think
19 the snapshot of the solicitation updates is really
20 helpful, to know which areas are over-subscribed. I'd
21 like to see that, actually, in a table, kind of line-by-
22 line, it might be a good way to show and demonstrate how
23 the shifts in funds -- the rationale behind that.

24 Just in terms of alternative fuels production,
25 just also following up on some of Bonnie's comments, I

1 think a couple of areas -- certainly supportive of the
2 opening up the aviation, I think that makes a lot of
3 sense, particularly since a lot of the advanced biofuels
4 interest, potential buyers in the aviation sector, so I
5 think that's a good move on the part of CEC to start
6 looking at other sectors, as well -- in addition to the
7 light-duty side. I'll mention, you know, Sustainable
8 Aviation Users Group forums, there's a number of
9 different forums going on, as well as the linkages to
10 DOD, Air Force interests, as well, in advanced biofuels,
11 which I know you are familiar with.

12 One area, I think, as you were talking about,
13 Jim, jostled my mind in terms of the focus on new
14 technologies that are sort of feedstock neutral, that can
15 take a lot of different feedstocks, I think that's a ripe
16 area, particularly with the remaining sustainability
17 funding, to kind of start focusing efforts around
18 feedstocks, you know, making sure as we have the
19 technology deployed that the right feedstocks are there,
20 that there is some support for those types of feedstocks
21 that we want to see, longer term that we all understand
22 is more sustainable, and I think a lot of this work, for
23 instance, the roundtable and sustainable biofuels just
24 completed, it was just finished, so global group of
25 stakeholders basically agreeing on sustainability

1 indicators, standards. Those are ways to, I think,
2 bridge this gap between, you know, that feedstock
3 question. I think the technology is there, but more
4 emphasis maybe on the feedstock side. And that's in the
5 letter we've sent, together with some of the other
6 environmental groups here.

7 And finally, I think it's important to look to
8 the demand side, the focus on fleets as potential buyers,
9 and ways to basically link both the suppliers, as well as
10 the buyers there. I think that effort -- things that
11 could be, you know, leverage in terms of things like a
12 spec standard, a specification standard for government
13 agencies to purchase fuels that could be used by other
14 agencies. Those may be kind of low hanging fruit that
15 could have some bigger impact in terms of the amount of
16 funding that goes to that, in terms of leveraging the
17 dollars here. So, thank you.

18 COMMISSIONER PETERMAN: Commissioner Peterman.
19 I'd just like to follow-up for a second on Simon's
20 comment about aviation. Omissions from aviation is
21 something that we are concerned with and we're looking
22 at, and we've seen consumption of aviation in California,
23 you know, increasing two to three percent a year. One of
24 the challenges, one of the considerations, if you will,
25 however, is that the funding is collected from Vehicle

1 Registration, Smog Check, and Voter Registration, and so
2 again being cognizant that we're not getting money from
3 activities associated with aviation, and that the state
4 has little authority over aviation, and we're trying to
5 figure out how at all we can address it with this plan.
6 But I appreciate your concerns.

7 MR. MUI: And we're willing to meet with you
8 individually to talk about that.

9 MR. PEREZ: Okay. We'll turn it back to Mr.
10 Carmichael.

11 MR. CARMICHAEL: I was waiting for Commissioner
12 Peterman to propose a \$.25 per passenger fee, which we
13 discussed with this agency a few years ago, actually,
14 because --

15 COMMISSIONER PETERMAN: I've got a flight this
16 afternoon, so after that, how about that?

17 MR. CARMICHAEL: -- a very small fee that could
18 go a long ways. Two things, Simon's comments reminded me
19 -- I should have started with complimenting the staff, I
20 really think you did a great job on this revision update,
21 and I've got to assume it's because it was just an
22 update, you had so much time to think about it and
23 actually work on the details. But, no, seriously I think
24 it reads really well, I think it's clearer than some of
25 the plans in the past, and that's all moving in the right

1 direction. I neglected to say a moment ago -- and taking
2 off my natural gas vehicle advocate hat -- that one of
3 the issues that this agency needs to think more about and
4 in the context of this plan is ethanol production. It is
5 not the most popular topic in Sacramento. But, unless you
6 believe that we're not going to continue to use ethanol
7 in the foreseeable future, as blended into gasoline or
8 used as E85, we need to take a serious look at where that
9 ethanol is coming from, and right now there's a lot of
10 conversation about it coming from not very good sources
11 in the Midwest, not good in their carbon intensity, and a
12 lot of discussion about importing it from Brazil. I
13 don't think either of those scenarios are as good as
14 supporting production here in the state. And I think
15 that is something that we need to talk more about as a
16 committee, as a state, and you know, this is on my radar
17 screen because I got a letter overnight from some of the
18 proponents for this, but it's something that I've spoken
19 to in the past because I think, if we agree ethanol is
20 going to be a part of the mix, why wouldn't we support
21 producing the lowest carbon version that we can here in
22 California? That, to me, is a logical way for us to go.

23 COMMISSIONER PETERMAN: I'll just say, just one
24 point on that topic, as we looked at all the resources
25 and opportunities, one of the things that's important to

1 the Commission, and personally to me, is investing in
2 opportunities that we see a pathway to self-sustainment,
3 and so we welcome your thoughts about that issue related
4 to ethanol, and based on our discussion we had in the
5 last Investment Plan about not adding money into the CFIP
6 program for the last plan, that was one of the key
7 rationales.

8 MR. KAFFKA: This is Steve Kaffka. I just want
9 to say amen again. I think that's a great comment. To
10 the degree that we can find improvement in sustainable
11 pathways in California, we're ahead all the way. But
12 that's not the main reason I wanted to make a comment. I
13 wanted to make a comment about the aviation fuel issue.
14 As industries build out, they can be both competitive,
15 but also complementary. I mean, the capacity to make --
16 if you can generate or assemble biomass in an effective
17 way, in ways that we agree are sustainable, and then
18 transform them into various products, one of those
19 products at one moment might be aviation fuel, and
20 another might be a transportation fuel. But in any case,
21 the overall capacity, the expansion of the capacity, I
22 would argue, at least intuitively, would tend to be
23 beneficial for all types of fuels and products from
24 biomass. So there's complementarities between the
25 development of biomass pathways for aviation fuels and

1 for transportation fuels.

2 COMMISSIONER PETERMAN: I want to hear from the
3 phones first. Let's hear from anyone we haven't heard
4 from yet on the Advisory Panel.

5 MR. PEREZ: I understand, Mr. Coleman, you're
6 out there. Would you like to speak?

7 MR. COLEMAN: Yeah, sure. So, it sounds like
8 we're still focused on the infrastructure segment. Is
9 that right?

10 MR. PEREZ: Fuel production, yeah.

11 MR. COLEMAN: Oh, fuel structure, okay. So
12 mostly I have several comments on the infrastructure
13 side, so I can hold until we get to that.

14 MR. PEREZ: Okay, we'll be there in a few
15 minutes. Anybody else online who would like to comment
16 on overall alternative fuel production, funding
17 allocations or issues, concerns, recommendations?
18 Members, please.

19 MR. SMITH: If I may, this is Charles Smith.
20 Just so everyone knows, Steve Ellis, who is sitting in
21 for Justin Ward on the Advisory Committee, is also on
22 WebEx.

23 MR. PEREZ: Okay, thank you. I'd just like to
24 remind everybody who is online from the general public
25 that we will be getting to your input and comments later

1 in this meeting, so thank you for your patience and
2 standing by. So with that -- Tyson.

3 MR. ECKERLE: Yeah, thank you. I just wanted
4 to commend the staff and every -- a great job on the
5 investment plan and also agree on some of the comments
6 that have been made by the Advisory members already. And
7 so Tim Olson's -- Tim Carmichael's -- sorry -- comment
8 about landfill gas being able to compete in this pool, I
9 think, is a very -- I agree with that, as well. This
10 competing on its own merits maybe it might make sense not
11 to select those projects, but I think it's good to at
12 least keep the option open.

13 Then, also, I just wanted to follow-up on
14 Bonnie's comment as far as defining the criteria for
15 greenhouse gas emissions, and also figuring out a way to
16 make sure that these biofuels do fit into our long term
17 2050 climate goals and maybe directing some of those
18 towards the heavy-duty sector. So, thank you.

19 COMMISSIONER PETERMAN: I wanted to make one
20 comment about the greenhouse gases. So we put out the
21 first report on the program -- when was that -- last
22 fall. And so -- and we really welcome feedback about,
23 again, how to quantify, assess some of these benefits.
24 So if you all haven't had a chance to look at it, please
25 take a look at that benefits report, particularly if

1 you're interested in some of the greenhouse gas
2 measurement, and offer us your feedback. So this is a
3 work in progress for us, as well, so I appreciate that
4 comment.

5 MR. PEREZ: Okay, I'll turn it over to Mr.
6 Levenson.

7 MR. LEVENSON: Another comment on the landfill
8 issue, if you don't mind. There's over a billion tons of
9 waste in place at landfills, so gas is being produced and
10 certainly CalRecycle has supported projects in the past
11 for capturing that and turning that into fuel. I'd also
12 just like to -- most of those landfills are pretty
13 profitable and the situation that we have with the
14 anaerobic digestion facilities, in particular, is that
15 they're having to compete with cheap landfill tipping
16 fees, and so, in our view, funding investment in that
17 sort of middle term, or medium term, infrastructure is
18 more critical than funding the landfill gas projects,
19 though we certainly don't want to preclude that, it's
20 just that we think there should be a separate allocation
21 to those anaerobic digestion-type projects. Thanks.

22 MR. PEREZ: Thank you, Howard. Okay, I think
23 at this point we're going to go ahead and move on to the
24 next funding category, which includes Alternative Fuel
25 Infrastructure. So with that, we'll take comments and

1 input on that funding category. Mr. Levenson, do you
2 want to begin? Okay, I saw your request to speak.

3 MR. LEVENSON: Oh, sorry.

4 MR. PEREZ: Eileen Tutt.

5 MS. TUTT: Thank you. Eileen Tutt with Cal
6 ETC. I just want to say a couple things here. One is
7 that, when I look at this and I look at the way the money
8 is allocated, usually the way the money is allocated does
9 reflect some sort of priority, and although I am
10 extremely supportive of hydrogen fueling infrastructure,
11 very very supportive, I just want to say that electric
12 charging infrastructure is burgeoning right now and I
13 feel -- I want to commend the staff on the work in this
14 report, I think it's very well done. The only problem is
15 that you didn't incorporate any of my comments. Now, I'm
16 going to say, I take personal responsibility for that
17 because I should have come and met with you personally,
18 and I've been meaning to do it, and I've just been
19 traveling a lot, to be honest. But anyway, I want to
20 make this final plea because you have less than a week.
21 We need more than \$7.5 million for charging
22 infrastructure. And the reason is that I've been out and
23 about a lot lately, but the workplace charging and MUD
24 issues are just very complicated, and they are -- and I
25 was a little concerned in the report with, you know, the

1 NRG settlement being reflected in the report, although I
2 think it's fine, I'm not making a statement, good or bad,
3 about the NRG settlement, but that settlement benefits
4 one company and they install their own chargers, and they
5 are a subscription-based model, NRG, as are many of the
6 third-party or EVSPs. So many folks, especially
7 workplace charging and MUDs just may not want to take up
8 that particular offer, so I'm not criticizing that
9 business model, I'm just suggesting that that is not
10 necessarily viable for many of the other workplace and
11 MUD chargers, or charging situations. So I'd like -- so
12 I don't think that you can assume that that will help
13 move the needle on infrastructure charging just because
14 it does really benefit only one company. And in my
15 working not only out in the external world, but even I
16 Government in the administration lately, a lot of the
17 workplace and MUD charging, they're really looking at
18 Level 1 infrastructure, or Level 2, that isn't
19 subscription-based. So this is going to -- this is a
20 huge challenge, and even I was at a conference yesterday
21 and they were saying that, you know, a lot of people
22 can't charge at home, so they will be charging at work,
23 or they can't charge at home with a Level 2, they need
24 Level 1. So we do need to equalize this number and I put
25 in my written comments where I would take the money, and

1 I'm not going to say that out loud here, but I do think,
2 you know, there needs to be a little bit more equality
3 here just because, although I'm wildly supportive of
4 hydrogen, the vehicles aren't out there in anywhere near
5 the numbers of electric vehicles, and there's many more
6 coming to market. So we just need to move more money to
7 electric vehicle charging. And I do want to note Jim
8 Boyd, our Chairman of the PEV Collaborative, in the PEV
9 Collaborative, we recently decided that we have to focus
10 on MUD and workplace charging because there's such big
11 challenges, and part of that is going to be needing
12 resources at the workplace and for apartment complexes
13 and condos and other multi-unit dwelling situations. So
14 thank you. I really really hope that we can move that
15 number up a little bit.

16 COMMISSIONER PETERMAN: This is Commissioner
17 Peterman. Eileen, thank you for your comments. I'll
18 just say a word or two about the NRG settlement. Unless
19 you were a party to that settlement, we haven't seen the
20 terms of the settlement until they'll be filed with FERC,
21 and so I think that will illuminate for everyone more
22 some of the terms. I can say generally that, from what I
23 understand, the intent is to have the roll-out of those
24 chargers to allow for broad access, multiple charging
25 type of infrastructure, not only the CHAdeMO structure,

1 not only the CHAdEMO, for example. And so I think that
2 it will benefit EV drivers and others in the industry, in
3 addition to NRG, and I think that is the intent of it.
4 And so, looking forward to that, I think that money will
5 benefit the industry and what we're trying to do with
6 this plan is we're continuing funding, obviously, in the
7 category, as you see, and looking to see what happens in
8 the next 18 month with their roll-out. Also, the roll-
9 out of the NRG stations is meant to be fast and so we're
10 not precluding further funding in this area, but I think
11 it's incorrect to say that it's not necessarily going to
12 help all others in the industry. I think we have to wait
13 and see in the next month when it's filed. But I also
14 appreciate your concerns. Eileen is giving me the look,
15 but...

16 MR. PEREZ: And let me just follow, one thing
17 that would also be very helpful to us at the staff level
18 and I want to encourage you not to be shy, and this
19 doesn't apply to Eileen, but all of you with respect to
20 your recommendations on increasing funding levels for
21 these particular categories, if you could give us an idea
22 what you're talking about and, more importantly, not to
23 put you on the spot, but where would you cut funding in
24 your colleague's call on CR2 categories, and I don't want
25 to create too much of a challenge here for you, but if

1 you could provide some specific recommendations, that
2 would be very helpful, too, because I think -- I just
3 have a feeling that every one of you would like more
4 funding in your category, I'm just taking a wild guess
5 here. But give us the level of funding you'd like and
6 any suggestions on areas that we might defer funding and
7 support down the road, that would be helpful, too. So,
8 thanks so much. John Shears.

9 MR. SHEARS: Yeah, so in our comments we also
10 acknowledge the NRG settlement and recognize that that
11 put the Energy Commission sort of in this situation of
12 trying to figure out how to contextualize the AB 118
13 funding and, given we're still all trying to figure out
14 what the shape of the NRG settlement is going to be
15 about, I'm actually very involved in trying to help
16 because I know there's a lot of concern and, in some
17 cases, confusion about the settlement and, you know --
18 full disclosure -- NRG is an affiliate of CEERT, so we're
19 trying to help on the outreach and trying to organize
20 meetings, so actually I was exchanging emails with some
21 of the folks at NRG as I was sitting here this morning,
22 but --

23 COMMISSIONER PETERMAN: If you can provide more
24 information, that's great.

25 MR. SHEARS: Well, I can also -- I think it

1 would probably be good to, maybe before the next draft,
2 see if we can get NRG to come in and see if they have
3 time to meet because I was a bit confused because there
4 is a mention in this draft update, and I just also have
5 been remiss in congratulating staff and the Commission,
6 again, this -- the first draft was so well done that
7 there was just basically polishing and obviously some
8 budgetary adjustments that were required to make this
9 newest draft. So, you know, I'll suggest and see if we
10 can arrange some meetings because I know you're on a
11 really really tight deadline, as are the negotiations.

12 COMMISSIONER PETERMAN: And I would say, as
13 part of that, more so it's important if you have any
14 exact corrections to the text as it is because we will be
15 having ongoing meetings, our staff is starting to engage
16 with NRG to make sure we're collaborating well, so I want
17 to make sure this document reflects the latest. But --
18 so don't feel the urgency to have a meeting in four days,
19 but --

20 MR. SHEARS: Right. Because, yeah, there is a
21 mention that the CEC will be coordinating, and I wasn't
22 quite sure how it gelled, the coordination, between
23 what's going on during -- with the settlement
24 negotiations and the Energy Commission's involvement in
25 that. It seemed kind of very -- maybe it's more hopeful

1 than --

2 COMMISSIONER PETERMAN: It's expecting.

3 MR. SHEARS: Expecting, okay. So on that note,
4 you know, we very much respect, while at the time we're a
5 big supporter of plug-ins.

6 CHAIR WEISENMILLER: Okay, but I think the
7 issue which certainly Eileen raised, and I don't know if
8 you're too familiar, if you can speak to it, or anyone
9 else in the room or on the line, is just obviously we
10 were pulling the plan together, the settlement came in,
11 and gave context. So part of it is trying to figure out
12 what that means. I think at the earlier meeting, you
13 know, if we had said we were getting the chargers, I
14 think Eileen would have been, you know, dancing down the
15 hall. But now that we have this number about 100
16 million, it's like how do we make sure that our money
17 really complements that --

18 MR. SHEAR: Right. Just to be clear, we are
19 not NRG, we are not involved in the settlement. We found
20 out about the settlement the way everyone else found out
21 about it, so we're just trying to help, you know,
22 identify people that NRG should be talking with. So
23 we're trying to help contextualize, to figure it out
24 ourselves.

25 COMMISSIONER PETERMAN: And also we are in

1 conversations -- we have talked with CPUC that is
2 involved in that settlement --

3 MR. SHEARS: As have we.

4 COMMISSIONER PETERMAN: -- and Nancy Ryan, so
5 we're engaged on it.

6 MR. SHEARS: Okay. So on that, I'm with you on
7 that, Eileen, I just think we're all trying to figure out
8 exactly what the shape is and the devil is in the details
9 on the settlement, and what that means for the other
10 (inaudible).

11 COMMISSIONER PETERMAN: But I also want to say
12 -- Commissioner Peterman here -- that, Eileen, regarding
13 your comments about workplace charging, MUD, incredibly
14 important areas to us, something we're trying to think
15 about going forward with the solicitations, definitely an
16 untapped area.

17 MR. SHEARS: We also highlighted that in our
18 written -- joint written comments, so -- and then on the
19 hydrogen side, you know, haven't changed our position
20 from the last Advisory Committee meeting. We do support
21 the \$11 million. We noticed that, in this draft, how the
22 funding for the hydrogen is dispensed has been opened up
23 to operations and maintenance costs, would like -- and,
24 you know, it's been proposed to cap it. We're still
25 doing -- the stakeholders that are involved, you know, in

1 mapping out the strategy for the deployments through
2 2017, we're still trying to work out, you know, what the
3 likely scenarios are for how the industry is going to
4 evolve in this, and while we're supportive of the idea of
5 trying to cap it, we'd like the idea to be more systemic
6 rather than station specific since some proprietors might
7 just want to have upfront capital and not worry about the
8 O&M, whereas other proprietors might prefer to go more
9 towards the cash flow model. So we think it might be
10 good just to develop that a little further with the
11 Energy Commission staff. And that's all I have to say on
12 those items for now, thanks.

13 MR. PEREZ: Thank you, John. I'll turn it over
14 to Mr. White.

15 MR. WHITE: Thank you, Pat. Erik White with
16 the Air Resources Board. First, I want to thank CEC
17 staff for working with ARB on the development of the
18 plan. I think it complements well with the various
19 programs we have at ARB on the motor vehicle side, as
20 well as our element of the AB 118 program and the AQIP
21 Program. I just wanted to touch real briefly on two
22 topics, certainly we support continued investment in
23 electric charging infrastructure and I think Eileen
24 raised this in a couple areas where we need to continue
25 to look at that in terms of workplace charging and

1 municipal utilities, those service areas, where there is
2 a need.

3 I also want to thank CEC staff for their
4 continued investment on the hydrogen fueling
5 infrastructure. We've worked very closely with you to
6 ensure that this next round of funding will be adequate
7 to ensure the continued growth of that infrastructure in
8 California to support what is -- what we see as these
9 vehicles coming, and the fuel cell vehicles are coming to
10 California, we've had a lot of conversations with
11 automakers, so this investment is absolutely critical for
12 the deployment of these vehicles into the state, so we
13 thank you and certainly support the levels that you've
14 identified in the plan.

15 MR. PEREZ: Thank you, Erik. Eileen. Okay,
16 Bonnie.

17 MS. HOLMES-GEN: Thank you. Yes, I wanted to
18 make sure that I communicate our support, both for the
19 hydrogen funding, we do continue to think it's very
20 important to prepare for hydrogen vehicles that are
21 coming out. And we do want to make sure that -- and I
22 know this is definitely planned to be for stations that
23 are above and beyond what is required by the ARB Clean
24 Fuels Outlet Regulation -- but I just want to make sure
25 that's really clarified in the report, and that's very

1 clear criteria. And in terms of the EV charging, you
2 know, we just think it's a critically important time to
3 be supporting plug-in vehicles, and I support Eileen's
4 comments and the comments that have been made about the
5 need for additional funding, increased focus on workplace
6 charging, everything we can do right now to help support
7 this roll-out of electric vehicles and working with local
8 government partners to make this happen as smoothly as
9 possible. So I think there's probably a need for some
10 more discussion, as we've said, about how this investment
11 is going to work together with the NRG settlement.

12 And I just wanted to make a broader comment
13 that I think applies to all the categories in talking
14 about where we are heading with this whole program. I've
15 been really excited lately to learn about some work
16 that's going on at the State Air Board, I think it's
17 called the Visioning Process, maybe Erik can give me the
18 exact name, and I'm pretty sure that you're aware of this
19 also, but there's an effort that's begun to take a more
20 comprehensive look at what do we need not only to reach
21 our State and Federal air quality goals, but of course to
22 reach our greenhouse gas goals, and this is a broad look
23 at what we need to do in the light-duty, heavy-duty, you
24 know, all sectors, and what are the specific amounts of
25 vehicles and alternative -- you know, clean alternative

1 fuels that we need. And I know that the CEC has done
2 some of this work, and I appreciate that, it's been
3 incredibly helpful, but I think we do need to continue to
4 have a broader and longer look at what's needed and in
5 coordination with sister agencies. So I've been excited
6 to hear what's going on at the Air Board, I think it's
7 still in the initial phase, but I think that should be
8 definitely referenced in the Investment Plan and this
9 should be more of a topic for discussion as we move
10 forward to the next Investment Plan to make sure that
11 we're coordinating, we're well coordinated with that
12 effort, and building in some of the numbers that we'll be
13 getting about what we need to achieve in the 2020, 2030
14 time frame, and how that fits with the investments that
15 we're making. So I wanted to put that out there. You
16 know, again, I've just been getting a little bit briefed
17 on this over the past few weeks, I know it's a new
18 process, but I think it will be really valuable for CEC
19 and ARB to work together and pull that into this process.

20 COMMISSIONER PETERMAN: This is Commissioner
21 Peterman. Bonnie, I'll just add in terms of contextual
22 -- how we conceptualize our hydrogen infrastructure
23 funding vis a vis CFO is a transition to the CFO
24 opportunities, so somewhat above and beyond, but really
25 in advance of because that won't trigger until 10,000

1 vehicles, and there's other conditions, and so just
2 wanted to clarify that.

3 MR. PEREZ: Okay, Jan Sharpless.

4 MS. SHARPLESS: I think Commissioner Peterman
5 sort of touched on what I was thinking about how the two
6 -- the new Air Board Regulation for outlets and the
7 funding in this category are going to dovetail. But can
8 you give me sort of a general idea of how many stations,
9 hydrogen stations, the aggregate amount of money in this
10 program would actually develop? How many stations are we
11 talking about?

12 MR. OLSON: This is Tim Olson, Advisor to
13 Commissioner Peterman. And maybe, Tyson, do you have
14 comments to share with us? So when you look at what
15 we've funded in the past, in addition to the ARB projects
16 in the -- like going back five years ago -- through this
17 plan with the \$11 million, we think we're going to be
18 around 34 or 35 stations, three major clusters in
19 Southern California, San Francisco, one station in
20 Sacramento. Looking at the roll-out of vehicles by 2015,
21 2017 timeframe, where automakers are making commitments
22 at around 50,000 vehicles, we're going to need probably
23 68 stations. This comes from a lot of analysis from the
24 collaborative of lots of different players here, backed
25 up with analysis from U.C. Irvine, U.C. Davis, and that

1 68 stations will -- we think they're going to average in
2 the \$1.5 to \$2 million per station, this is the early
3 roll-out. And we think that will lead to the point of
4 the CFO trigger in that timeframe, and that there are
5 financial investment viewpoints, viewpoints from
6 financial investors that they think that capital
7 investment could be covered with non-Government funding.
8 That assumption is that O&M costs, throughput on fuel
9 delivered to vehicles, is going to be kind of a stagger
10 into that timeframe, which may require some investment,
11 some Government incentive.

12 COMMISSIONER PETERMAN: I'll also add that the
13 industry's proposal, or need for 68 stations, reflects a
14 need for coverage, in particular, and each of those
15 stations will have potential for additional capacity as
16 we see a ramp-up in fuel cell vehicles, but having that
17 footprint is what's been desired.

18 MS. SHARPLESS: Okay. So, you were asking a
19 question, if you were to move the funding around, where
20 you would take it. I guess my question went to sort of
21 the risk; if you were to reduce that amount from the
22 hydrogen fuel category, then you would increase the risk
23 of not meeting the needed requirement in reduction of
24 vehicles and to meet the -- in other words, you would be
25 leaving a gap.

1 COMMISSIONER PETERMAN: Yeah, and there's not
2 -- I believe there's not a proposal to reduce that
3 funding category.

4 MS. SHARPLESS: No, no, no, no, there's no
5 proposal, but the tradeoffs. You're looking at
6 tradeoffs. There's been some suggestion that, you know,
7 EVs need more --

8 COMMISSIONER PETERMAN: I see what you're
9 saying, okay.

10 MS. SHARPLESS: -- infrastructure money. Okay,
11 where do you take it?

12 COMMISSIONER PETERMAN: Right. Okay, thank
13 you.

14 MR. PEREZ: Okay, Eileen.

15 MS. TUTT: Thanks. Eileen from Cal ETC. Just
16 to be really clear, in our written comments we didn't
17 take money from hydrogen where we think it needs to go.
18 What we suggested, and I'm going to take up Pat's
19 challenge, even though I swear to God, I'm probably going
20 to be shot after this meeting, we did suggest that
21 additional \$2.5 million come from biomethane and gasoline
22 substitutes production. And not that we don't think that
23 \$20 million in alternative fuel production is important,
24 we do, Again, I look at that whole budget as a
25 reflection of priorities. I look at the landscape out

1 there -- where are we with the different technologies?
2 Clearly, electric vehicles are here now, they're going to
3 be huge -- every auto manufacturer has announced many of
4 them are coming out this year, we have to be supporting
5 this -- it has to be reflected in the budget that we
6 wildly support electric charging infrastructure because
7 that is clearly one of the market barriers. So I just --
8 what I wanted to do is bring the money up to a \$11
9 million so you still had a big chunk going to biofuel,
10 which I think is a priority of the State, but clearly
11 electric vehicles -- it almost looks like hydrogen is a
12 greater priority, and I understand the stations are more
13 expensive and all of that, but -- and I don't want to
14 take any money from hydrogen, but I did want to move that
15 \$2.5 million.

16 And in the NRG discussion -- sorry to give you
17 the look, Commissioner Peterman -- but I just want to
18 encourage you to work not just with NRG, but with the
19 other EVSPs, with us, with the utilities, because the
20 truth is that the NRG settlement, they did work behind
21 closed doors for good reasons, it was a legal settlement,
22 with the PUC and they're working with you, but the
23 others, it does feel a little bit like they're shut out.
24 And so I think it's going to be really important to have
25 open door, honest conversations, you probably did see the

1 resolution out of the Assembly, there's just a lot of
2 uncertainty about what this means. And I have had a
3 number of conversations with the PUC, and with NRG, and
4 with the other EVSPs, and with the utilities, and there's
5 no -- nobody is like opposed necessarily, but they are
6 concerned about the direction that it looks like it's
7 going, so just talk to all of us is what I would say.

8 COMMISSIONER PETERMAN: And I -- this is
9 Commissioner Peterman -- Eileen, your comments are well
10 received and the Energy Commission has been the primary
11 funder of electric vehicle charging prior to the
12 settlement, and we've invested a lot of time, effort and
13 learned a lot in our process, and particularly as we're
14 especially working on the PEV readiness plans. So I
15 think we're actually a good venue for working with all of
16 these stakeholders because we have been working with the
17 diversity, and that's why, even when the settlement came
18 up right at the time of putting out the Investment Plan,
19 even though some may call for putting a zero in our plan
20 to wait out and see what happens with the settlement, we
21 were committed to not doing that because we wanted to
22 maintain a pot of funding that we could do solicitations
23 with, and address some of these concerns. So, duly
24 noted.

25 MR. PEREZ: Thank you, Eileen. Mr. Eckerle.

1 MR. ECKERLE: Well, thank you, it's been a very
2 interesting discussion to listen to and I agree with all
3 the stakeholders, I think that zero emission vehicles
4 right now, I mean, it really is a critical turning point
5 and sending that signal that California is serious about
6 hydrogen and battery electric and plug-in vehicles is
7 incredibly critical. And so I think the Energy
8 Commission has taken a smart track by, you know,
9 monitoring the NRG settlement, and I think Eileen has
10 brought some really great points to bear that I hadn't
11 even thought about, and so I think it is critical to make
12 sure we get other people into the marketplace, as well.

13 On the hydrogen side, I think the \$11 million
14 is absolutely critical to maintain and, as Tim said, you
15 know, getting up to that 68 station number is critical.
16 And one of the -- just to provide a little bit of context
17 because I've done some analysis behind this, is that 68
18 station number is kind of, like Commissioner Peterman
19 said, a coverage number. And so that basically gives the
20 automakers the opportunity to sell the car and the
21 consumer has the similar benefit to driving the gasoline
22 vehicle in those cluster areas, which is a critical
23 distinction as far as, you know, to grow the market.

24 But in terms of the overlap with the Clean
25 Fuels Outlet, if you overlay the likely station capacity

1 sizes, that 68 stations actually covers about 20,000
2 vehicles, which is the trigger for the Clean Fuels Outlet
3 to pitch in statewide, so that's kind of another backing
4 for that number and why we need to keep funding to get to
5 that.

6 MR. PEREZ: Thank you, Tyson, we have two
7 committee members on the phone that would like to speak
8 right now. Let's begin with Steve Ellis.

9 MR. ELLIS: Good morning. Can you hear me
10 okay?

11 MR. PEREZ: Yes, we can.

12 MR. ELLIS: Okay, good. So Steve Ellis with
13 American Honda. Actually, I'm sitting in as an advisory
14 member for Justin Ward with the California Fuel Cell
15 Partnership. So, first of all, I would like to say
16 thanks to the CEC staff for continued dedication to this
17 proposal of the Investment Plan. It's really, I think,
18 been a continuum of improvements and my observations
19 follow-up directly over the last few years. It's clear
20 throughout the document that CEC is committed to see
21 reduction of greenhouse gas in California and promotion
22 of advanced powertrains and fuels. Specifically talking
23 about hydrogen, the Partnership would like to express
24 support for the funding allocation and through this
25 continuation, funding will be able to maintain growth of

1 hydrogen stations towards this goal of 68 that was
2 mentioned earlier, by the end of 2015. But we do still
3 have a ways to go before we can realize the 68 stations.
4 But I think that through this Investment Plan, we
5 definitely will be one step closer, so appreciate the
6 opportunity to speak today and make these comments.

7 MR. PEREZ: Thank you, Mr. Ellis. Moving on to
8 Mr. Coleman, are you there?

9 MR. COLEMAN: Yeah, thanks. So you had
10 requested that we suggest cuts and I might take the risk
11 of stirring the pot a little bit.

12 MR. PEREZ: It's always easy to do from a
13 distance.

14 MR. COLEMAN: Yeah, exactly, I can't see
15 everyone's face, so I'm well aware of what their looks
16 are right now, but -- you know, I can appreciate, I think
17 one of the things we all sort of appreciated is the
18 challenge and complexity of putting this together over
19 time, you know, it's a multi-varied problem, you know,
20 you're trying to figure out an optimization between the
21 availability and readiness of these technologies and
22 fuels, and meeting them with the vehicle side, and the
23 impact they're going to have, so I think, you know, the
24 context in my mind is that I appreciate that complexity.
25 I think I agree with the sentiment of Eileen's concern

1 early on, if not with the proposed solution, which is
2 that, if you do look at those fuel -- the infrastructure
3 allocations, it certainly pops out that hydrogen is the
4 top priority, and I can appreciate that that is an ARB
5 priority through the CFO program and others. I'm not so
6 certain why it's such a priority here in this program.
7 And so, from the report, it seems to be that it's the
8 most expensive and least ready and least reflective of
9 the current market forces of all the other infrastructure
10 solutions. And so I may be missing something in that
11 regard, but I think it would help to justify each of
12 these technologies based on more of an apples to apples
13 comparison, and this is where I sound a little bit like a
14 broken record because I bring this up every time, and I
15 appreciate that there's now a Benefits Report, which I
16 think is a very useful thing, but you know, when I read
17 through the report I'm trying to understand the
18 justification for each of these categories, and it's
19 actually hard to tell because, when I look at the
20 hydrogen component I see, you know, it's about \$1.3 to \$2
21 million per station; you know, when I look at E85, it's
22 anywhere from the average on the report is about \$300K,
23 although it's cited as \$50 to \$200, and the average for
24 natural gas is somewhere around \$250K. So you sort of
25 see a Delta there. It's not clear to me how many miles

1 are being serviced, how much greenhouse reduction
2 potential is being offered by each of those stations.
3 And I guess what I would offer is that I think it's
4 important to bring hydrogen back under the umbrella, if
5 you will, and put all of the infrastructure
6 opportunities, or alternatives, side-by-side because it
7 feels like hydrogen has just been considered separately.
8 And let's see how those things stack up. And, you know,
9 I'm not necessarily suggesting that you should be cutting
10 the hydrogen numbers, although my gut says in looking at
11 this that it seems like the outlier, but it does seem
12 like we need a little bit better understanding. If this
13 is the evaluation that has been done, we need a better
14 understanding of how you're stack ranking those things.

15 And you know, to Commissioner Peterman's point
16 about the need in this space, and I think a number of
17 other people have mentioned it, the need of getting to 68
18 stations, you know, I think there's a whole lot of needs
19 out there in these marketplaces that we see on a daily
20 basis, but it seems like the justification here is that,
21 because the need is so large, the Government should
22 therefore go and deploy those dollars. My concern is
23 that we're out ahead of this trend significantly, and
24 that the number of vehicles in the roads sort of attest
25 to that, which is 350, I think, in 2011, you know, vs.

1 say 450,000 for E85 vehicles out there. You know,
2 there's not a critical mass yet, and there hasn't been
3 for a long time, and I understand that there's a chicken
4 and egg challenge here, but the lack of co-investment
5 from the private market on this one makes me extremely
6 nervous. And it was even cited in the report that one of
7 the things that needed to happen, and I think three of
8 the stations being funded were for upgrades from prior
9 technologies, but these were outdated technologies, they
10 were stations that were put in ahead of the -- you know,
11 ahead of the trend. And you know, as a result, they were
12 stranded. So, you know, I think we just have to think
13 more carefully about -- or, not more carefully -- I think
14 we have to think very carefully about whether or not,
15 because the list is needed, that this is the program that
16 should be doing it, and whether it's the best allocation
17 of those dollars in the context of a very limited amount
18 of dollars, and how much co-investment from the private
19 industry is required because, from what I read in the
20 report, it's both capital costs, O&M, and so on and so
21 forth, that's being funded in hydrogen, whereas a lot of
22 these other stations, you're not having to put in that
23 kind of dollars to support the program.

24 So I guess I would ask, you know, if somebody
25 could talk a little bit about those comparative benefits

1 on an apples to apples basis and how the -- what the
2 logic is there, and how we should be thinking about the
3 timing of this program, and what kind of commitments we
4 actually have from the vehicle manufacturers, because I
5 understand there are commitments made inside of the CFO
6 program, but for these early stages, what are the
7 commitments that we're actually going to see, the early
8 vehicle deployment, if we deploy these stations?

9 COMMISSIONER PETERMAN: Hi, Will, this is
10 Commissioner Peterman. I just want to offer a comment
11 and then I would ask staff or perhaps even Tyson, who has
12 been working doing some analysis looking at hydrogen
13 infrastructure, to comment. It is not my view, and I
14 would caution against the presentation of what we do as
15 stack ranking because it's not stack ranking.
16 Fundamentally, we're trying to look at each resource and
17 technology, see what the needs are for that, and then
18 acknowledging that everyone has got more needs than you
19 can meet with a \$100 million pot of money, adjusting
20 accordingly. And so everything is not going to have the
21 same dollar amount on it, and I'm sorry if that's how the
22 document is read, I think we try to be very clear about a
23 diversified portfolio, etc., but that is not what we do
24 is necessarily apples to apples, this is looking within a
25 fuel, within a technology resource, looking at the

1 opportunities, and of course there is sometimes some
2 comparison, but that's not how the approach is done.

3 And also, I would say I hear your concerns
4 about whether the -- what will be the realized cars in
5 development and, frankly, this is something that you have
6 across all technologies -- electric vehicles, as well. I
7 mean, just within this year, looking at forecasts for
8 electric vehicles, we've had quite a range between the
9 OEM projections and consumer preference, and so I would
10 caution about requiring over-certainty for any vehicle
11 types since we don't have it for any. That being said, I
12 think we have received information that gives us more
13 comfort that the projections from the OEMs, in terms of
14 Fuel Cell Vehicles, are more likely than they were in the
15 past. And, you know, I came into this job last year, you
16 know, coming out of frankly a place of hearing about the
17 hydrogen highway as something that would happen in the
18 future. Based on what I've learned over the last year, I
19 have more comfort that we've moved in that model, that we
20 are now not past the highway idea in looking at these
21 cluster opportunities, and that there is exactly more of
22 a near term opportunity than there used to be. Again, I
23 am not recommending we preference any of these over
24 another, but I think we've got to, at least with fuel
25 cell vehicles and hydrogen, look at where things are now

1 vs. where they were where the dialogue was a couple years
2 ago. So those are my two cents, and I would welcome any
3 other factual input from someone else.

4 MR. SHEARS: This is John Shears and, first, I
5 want to just clarify, this is not ARB's pet project. I
6 just want to clarify, this is State policy, ARB is the
7 resident agency that has the regulatory authority given
8 to it by the Legislature. This goes back to 1990, the
9 California Clean Air Act into 2006 with AB 32, there's
10 been huge amounts of research done on this, California,
11 U.S., Europe, looking at transportation's role in meeting
12 greenhouse gas compliance for 2020, 2050. All the work
13 shows that advances in hydrogen fuel cell vehicles are
14 critical technologies. We haven't talked about, you
15 know, a lot of the funding that's being discussed right
16 now in the AB 118 (inaudible) passenger vehicles, but we
17 can get into a discussion about the role for batteries
18 which, you know, there are rules on the heavy- and
19 medium-duty side, but (inaudible) transport, as we're
20 moving forward in the coming decades, you know, fuel
21 cells will probably have very -- an increasing role in
22 long range transport on road and off road. So there's
23 that.

24 The other aspect of this is that there have
25 been huge amounts of funding federally for plug-ins.

1 That has not been the case for infrastructure, federally.
2 Right now, DOE has not for a long time funded
3 infrastructure for hydrogen outside of research and
4 demonstration. And just to clarify the upgrades for
5 those few stations that were mentioned, those stations
6 were, in fact, originally deployed as demonstration and
7 research stations. They were never deployed as retail
8 stations, so I just want to clarify because, you know, a
9 lot of confusion and I think a lot of sort of the tarnish
10 that is based on hydrogen because of the older stations,
11 is people, whenever they hear about them, they assume
12 that those were meant to be retail and that they failed,
13 and that's why they need to be upgraded or shut down. It
14 was always intended that some of those stations would
15 probably shut down once they had, you know, their use in
16 research had expired. So I just want to clarify on that.

17 And finally, I want to also back up,
18 Commissioner Peterman, and we're all -- many of us in
19 this room are working mightily, both electric drive and
20 hydrogen, both vehicle technologies hold a lot of
21 promise, but they also come with huge amounts of risk.
22 The auto manufacturers are coming forward with a large
23 number of vehicle models. That does not mean, even if
24 the infrastructure is there, that the market, consumers,
25 will be accepting of those vehicles. So we should not

1 trap ourselves into the tautology that, because there's a
2 lot of funding, that means the market will succeed, and
3 because OEMs are putting out a lot of vehicles that means
4 there will be a lot of sales of vehicles. We're entering
5 a very (inaudible), as Eileen mentioned, this next 12 to
6 18 months we're anticipating (inaudible) to maybe even 20
7 by the end of that window, and new models of passenger
8 vehicles, and we'll have to see, you know, whether the
9 consumers really are accepting of those vehicles. So
10 we're heading into an important test period for plug-in
11 vehicles.

12 In terms of hydrogen, what we're about, and
13 this is the role of Government, is helping to bridge the
14 risk and to build a market until the investor community
15 can potentially take over. So, getting to 68 stations
16 actually within the clusters also gets us -- helps get
17 the fleet numbers up to numbers where, potentially, with
18 a little more infrastructure, there could be a self-
19 sustaining market within those cluster markets for
20 hydrogen fueling that might not even require any further
21 government support. So we're also working, when we're
22 all working around the strategy around hydrogen, to get
23 hydrogen and fuel cell vehicles off the Government dole
24 as soon as possible and so we're looking about how all
25 these numbers are reflecting how to build a self-

1 sustaining market around hydrogen.

2 MR. COLEMAN: Can I jump in and just clarify
3 one comment, which is that, in terms of the apples to
4 apples comment and in terms of the sort of role here of
5 this program, you know, I think, John, you just mentioned
6 that the role of Government is to jump start these
7 markets. I don't necessarily agree with that. I think
8 that it's to jump start these markets where there is a
9 significant public benefit for doing so. And, you know,
10 I agree with your statement that a lot of the long term
11 forecasting has suggested that hydrogen is likely to be a
12 component of that solution to the degree that we can get
13 to where people want to get to in terms of where the
14 hydrogen comes from, 1), and 2) the kind of deployment
15 that people are talking about and that other technologies
16 don't surpass hydrogen, but that's also a long way off.
17 And I guess what I would argue is that, when we need to
18 look at how to allocate these dollars at these different
19 types of technologies, the issue is what the public
20 benefit is, and therefore that then gets back to the
21 apples to apples comparison. So, Commissioner Peterman,
22 I understand that there is a lot of considerations, I
23 think that's how I caveated my comments to start with,
24 around whether or not -- you know, which of these
25 technologies should be deployed when, and that a lot of

1 those considerations are not necessarily just greenhouse
2 gas reductions but their readiness and where the market
3 is, and whatnot. I think that is an important
4 consideration, particularly in this case, on both sides
5 of the ledger. But I also think that we need to make
6 sure that, for these limited dollars, we are deploying
7 towards the highest public benefit which, in this case,
8 the priority of the program is the largest carbon
9 reductions for the least amount of dollars. And so, to
10 the degree that we're meeting that charge, then great.
11 And if that's the case, then great. But I'd love to see
12 that justification in the report and understand that
13 that's actually what we're doing in this case.

14 COMMISSIONER PETERMAN: Thanks, Will. And I
15 think this is -- I'm enjoying this dialogue, I mean,
16 we'll probably have to move on at some point soon just
17 because there's other things in the Investment Plan, but
18 this is exactly the dialogue we need to be having, not
19 just among -- just choices about electric cars and
20 hydrogen cars, but also about all the different types of
21 cars and infrastructure that the Commission supports. As
22 I mentioned in my earlier comments, we see our role
23 slightly differently, perhaps, than some of the other
24 entities that are funding in this space, in that we're
25 trying to do a broader diverse portfolio. And so, as

1 animated as this discussion on these two topics has been,
2 it's even more so when you expand. And I guess I just
3 have a slightly different view on exactly what we're
4 doing here, Will, in terms of we do want to maximize
5 public benefits, but to maximize public benefits at the
6 least cost, I don't know if I would -- that is ultimately
7 what we'd like to do, but you invest in different things
8 if you're doing that, and I think we're looking at near,
9 medium term and long term. But I think it's a discussion
10 that keeps going and that we'll have an opportunity right
11 around the corner with the '13-'14 Investment Plan
12 design, as well, to think through this.

13 MR. COLEMAN: Appreciate -- I only wish I could
14 have seen people's faces.

15 MS. SHARPLESS: I really support what John said
16 and Commissioner Peterman. And I'm just reminded that,
17 way back when in 1989, or whenever we adopted the low
18 emission vehicle program and the ZEV mandate was within
19 it, that we had the same skepticism, we had the same
20 argument, and we also had the documentary *Who Killed the*
21 *Electric Vehicle?* And look at the discussion we're
22 having today. The question of readiness is really
23 crucial because it depends on people's perspective of
24 what readiness means, and where our benefits are going to
25 be achieved. Any time you have an innovative technology,

1 there's always questions of how you get to
2 commercializing that innovative technology that looks
3 like it can actually deliver a large public benefit. And
4 then there's always huge risks, huge risks, which are
5 involved in the formula of costs. So I couldn't agree
6 with your comments more, Commissioner Peterman.

7 MR. PEREZ: Thank you. I think what I'll
8 recommend is that we take two more comments, and then we
9 move on to the next funding category if that is okay with
10 the Committee. So, Steve.

11 MR. KAFFKA: Well, I think I want to also say
12 that I think staff has done a great job in trying to sort
13 out all these priorities, it's a huge amount of input in
14 terms of proposals and ideas and counterpoint views. And
15 I would caution against the temptation to start to
16 cannibalize these categories. For example, biofuels
17 represents -- and biofuel production represents 20
18 percent of the investment in the state, but I think that
19 realistically, the state has set goals in terms of
20 transportation fuel, greenhouse gas reduction, as well as
21 the Federal Government, and I think these policies are at
22 a very kind of delicate point about whether, in fact, the
23 fuels will be there. And we have to think about who is
24 going to benefit, I think, in terms of the population
25 from these policies and what the costs to the population

1 will be, and the majority of transportation of all types
2 in the future is going to remain liquid transportation
3 fuels. Its electric vehicles and other alternative
4 vehicles are very expensive, they're going to remain
5 expensive relative to more fuel efficient liquid
6 transportation vehicles, and we gain quite a bit from
7 reducing the greenhouse gas intensity of transportation
8 fuels. And we also have much more certainty in terms of
9 near to midterm that some of these projects could in fact
10 generate those kinds of savings at a cost closer to what
11 average Californians can bear. So I think that I would
12 avoid very much the suggestion of cannibalization of
13 these categories, myself.

14 MR. PEREZ: Thank you, Steve. One more comment
15 from Mr. White and then we'll move on to the next funding
16 category.

17 MR. WHITE: Thank you, Pat. Well, I think this
18 has been a great discussion around the table and on the
19 phone. I certainly want to second John's and Jan's
20 comments about, you know, the need for investment to
21 ensure that zero/near zero technologies will successfully
22 be deployed in the state. And Bonnie mentioned the
23 Visioning document that ARB is working on closely with
24 several of our districts in the state, and what we're
25 seeing in that, as we start to look at what's it going to

1 take to get to 2050, and what steps do we need to begin
2 taking today, to reach those goals, not just for
3 greenhouse gases, but for criteria pollutants, as well.
4 What we're finding is that the timeframes we thought we
5 were going to need to introduce and deploy these
6 technologies are much faster as we begin to recognize the
7 need for near term criteria pollutant reductions, that
8 will also provide greenhouse gas reductions. So it's
9 absolutely critical that we're making the investments in
10 the infrastructure today so we are sending the right
11 signals to automakers, engine manufacturers, we were
12 talking about light-duty or heavy-duty, that these type
13 of technologies are absolutely critical and necessary for
14 the State to meet both its greenhouse gas and air quality
15 goals and commitments.

16 MR. PEREZ: Thank you, Erik. Bonnie, did you
17 have one final --

18 MS. HOLMES-GEN: Yeah, and I really wanted to
19 agree with Commissioner Peterman and my colleagues, John
20 Shears and Jan and Erik, and just reiterate the American
21 Lung Association's strong support for moving forward
22 quickly -- quickly -- with additional assistance and a
23 real focus on hydrogen and electric vehicle categories,
24 and just the critical nature as Erik had mentioned, not
25 just for greenhouse gases, but for getting those near

1 term air pollution reductions that we need to benefit
2 communities.

3 MR. PEREZ: Okay. Thank you, Bonnie. With
4 that, we're going to move on to the third funding
5 category, which is Alternative Fuel and Advanced
6 Technology Vehicles, a broad category, and let me open it
7 to questions. In fact, why don't we do something a
8 little different? I'm going to take the people, our
9 committee members online first. Steve and Will, would
10 you like to comment on this category?

11 MR. COLEMAN: I'm all set, thanks.

12 MR. PEREZ: Okay, Will, please proceed.

13 COMMISSIONER PETERMAN: He says he's not --

14 MR. PEREZ: Oh, no? How about Steve? Any
15 comments on this funding category?

16 MR. ELLIS: Hi, yeah, I just want to make sure
17 you can hear me.

18 MR. PEREZ: Yes.

19 MR. ELLIS: Okay. So I think that also maybe
20 time to explore with further future dialogue the
21 inclusion on fuel cell electric vehicle under the Vehicle
22 category for funding, certainly not necessarily
23 commenting that this should occur at this time or
24 anything, but would like to just put that on the radar
25 screen.

1 MR. PEREZ: Okay. Thank you very much. Eileen
2 Tutt.

3 MS. TUTT: Eileen at Cal ETC. I just want to
4 really commend the Air Board and the CEC staff on this
5 medium- and heavy-duty incentives and light-duty vehicle
6 incentives. I think sometimes the agencies can compete
7 with each other in certain ways, and I just think this is
8 a clear example of them working together, and that the
9 Air Board funding was deficient, and the CEC stepped up
10 and, in a very very important way, because the truth is
11 that these incentives are absolutely driving the market
12 right now, and so I really appreciate the fact that
13 you've increased it for light-duty and for medium-duty,
14 light-duty up to \$5 and medium-duty -- and I really also
15 appreciate that you're listening, and I hope you're
16 listening very closely to what the Air Board is telling
17 you they need, I'm sure you are, because that money is
18 running low again and, as these vehicles are coming out
19 in large numbers, we want to make sure they're all -- the
20 incentives are available, and as a -- I'm not going to
21 say anymore. Thank you.

22 COMMISSIONER PETERMAN: And I'll just say
23 that's -- I think at the beginning of last year's
24 Investment Plan that we transferred some money to ARB to
25 support the CVRP program, and we appreciate the

1 importance of the vehicle incentives, and we especially
2 have an interest in opportunities for electric trucks.
3 As I mentioned in my opening comments, we are in
4 conversations with ARB about what the additional funding
5 needs are at this immediate time with this plan, because
6 I think, as we all appreciate, all of our categories are
7 over-subscribed, and there's a need for money throughout
8 the space. And so that's why, again, I say this
9 tentatively "up to," but we thank you for your support of
10 our support of this, if you will. And part of that is
11 having -- we've committed to ongoing dialogue with ARB
12 that, as we work to the '13-'14 plan, as they have some
13 more certainty about the demand in their HVIP program,
14 for example, as well as the discussion of a long-term
15 plan for the CVRP, that there's opportunities for us to
16 be of additional support, we've love to discuss those.

17 MR. PEREZ: Thank you. I'm going to switch
18 over to Ralph Knight.

19 MR. KNIGHT: I'd just like to say thank you to
20 Commissioner and staff for all the hard work that goes
21 on, and also Jim Boyd. Napa Valley Unified has been
22 involved with CEC and projects for over 22 years, we
23 started back in AB 35, and I guess it kind of brought a
24 tear to us as we saw one of those crowns that we invested
25 in AB 35 headed to the crusher to be replaced with a

1 brand new hybrid vehicle. So, you know, times have
2 changed, we've gone a long ways, and I think that I just
3 want to see the opportunity for school transportation to
4 continue to go forward like we have. There's some
5 excellent projects that are out there, that are right on
6 the horizon for school transportation, hydraulic hybrids,
7 packages for electric vehicles where we can convert
8 existing buses to electric vehicles, true electric.
9 We've supported electric vehicles over the last 17 years
10 and we got our first two electric buses, we had the Ford
11 Electric Rangers in our operation, and I still have RAVs
12 in my operation. I want to have more electric school
13 buses, I think it's the perfect place for that type of
14 transportation. We're promoting and getting ready to
15 install some solar charging for our plug-in hybrid bus.
16 I enjoy it every time I walk in to ARB's hallway down
17 there for meetings and see the picture of our hybrid bus
18 hanging on the wall down there, so that's a great thing
19 to see.

20 I want to make sure that school bus still is
21 there. I think, like I say, there are some projects that
22 are on the table right now that are coming forward very
23 quickly that I think the school bus can be a part of, and
24 our industry probably is some of the last to get some of
25 this technology, but I think this technology is diverting

1 itself towards school bus because of the budget issues
2 that we're having right now, and bus replacement problems
3 that are out there, so I think that I really mark those
4 as being leading projects right now to benefit us. And I
5 think one -- I'm not sure whether now is really the right
6 time, but I put a little package together, and Bonnie
7 might have looked through her package in there, we are
8 looking -- if you look into page 2 of this, you'll see
9 this pretty new hybrid bus with the green belt rails
10 going down the side -- those buses are sitting in my yard
11 right now, legal to haul you and I down the road, but we
12 can't put a kid inside that bus because it's not CHP
13 certified to haul kids right now. And the reason why?
14 Because it's got green belt rails on it. Title 13
15 requires black. We're allowed to paint the bumpers
16 green, that is okay, but we are not allowed to paint the
17 belt rails black. And I guess where I go with this right
18 now, I kind of put a fact sheet on the front, first
19 responders need to know what they're dealing with as far
20 as alternative fuels are concerned, and I think it's a
21 big issue. My local fire department and fire chief
22 supports this thing because -- it was a struggle for us
23 at the beginning to get them on board with alternative
24 fuels -- but I think any first responder needs to know if
25 they've got a natural gas bus, a propane bus, electric

1 bus, or a hybrid bus, or any fuel that's out there, as
2 they respond to that because, by no means do we want to
3 see them cutting through the side of a bus to get a kid
4 out of that bus and have them hit a 300 volt wire going
5 through there because it's an electric vehicle, or throw
6 a spark and let it hit that propane or natural gas. We
7 don't want to see that happen to us.

8 And, you know, CHP just doesn't like changing
9 law, but the door is open for an exemption to be able to
10 do this. I think this is a very important item. I am so
11 behind this and I think you'll see that Judy Byrd from
12 the American Lung Association is one of my letters that
13 I've attached to this to kind of give you a feel of where
14 people are coming from with this, I have letters from
15 Fire Chiefs across the nation with this, I've carried
16 this across the nation, if we can get CHP to exempt these
17 buses, it will be the first buses in the United States
18 with green rails down the side. And I think that the
19 whole intent of this thing is to make everybody safe. Is
20 this green rail going to kill a kid in that bus? No,
21 it's not. But is it going to save somebody's life? If
22 it saves one life, a fireman, or a child on board that
23 bus, that's a plus. And it's the difference between
24 green and black. So, I mean, it's a real political issue
25 for me right now and I open the door for any support

1 letters. My application goes in next Friday to CHP, I'm
2 going to hand deliver it for the exemption. We are not
3 fighting with CHP on this, they opened the door to
4 exemption for us for this, they don't like changing law.
5 And Title 13 controls the color of a school bus and the
6 way it's built, and everything else, in the State of
7 California. But they left the door open, said let's talk
8 exemption, let's talk data collection, let's talk -- and
9 this was before the first responder thing really led off,
10 that they recommended the exemption process. So that's
11 the package I put together here. And I guess I just want
12 to again thank everybody that's involved, and what school
13 bus has done, and like I say, we've been playing with
14 this stuff for 22 years and we're not ready to retire
15 yet, we're continuing to go on with more.

16 COMMISSIONER PETERMAN: This is Commissioner
17 Peterman. Ralph, I just want to thank you for your
18 enthusiastic participation in the Advisory Board over the
19 last year since you joined us, and for really bringing to
20 our attention some of the particular issues related to --
21 and opportunities related to school buses. And I think
22 what you're working on here just speaks to some of what
23 we're trying to think about, which is how do we prepare
24 communities for these alternative fuels and vehicles, and
25 we formalize that with electric vehicles in terms of the

1 PEV Readiness Plans, but I'm also interested in your
2 suggestions about if there's a need with other both
3 technologies or fuels, you know, simple things -- not
4 simple, but important, critical, possibly overlooked
5 things like you're bringing to our attention. So thank
6 you.

7 MR. PEREZ: Okay, let's go to Erik White.

8 MR. WHITE: Thank you, Pat. I just wanted to
9 thank Commissioner Peterman for her comments. It has
10 been a pleasure to work with CEC staff to understand the
11 needs for incentives in the light-duty and the medium-
12 and heavy-duty marketplace. And as we look especially at
13 the light-duty marketplace, and we look at the CVRP
14 program that ARB has, and recognize that, even with
15 substantial funding by ARB, we will be able to cover a
16 third of the expected demand for this upcoming year,
17 continued investment by the CEC as they've done in the
18 past, which we very much have welcomed. I think it's
19 going to be critical to ensuring that we get through this
20 upcoming fiscal year, and then have an opportunity to sit
21 down and talk with stakeholders and the CEC about the
22 future of that program, and how we might need to
23 restructure that moving forward, to recognize these clean
24 vehicles that are coming in to California under that
25 program.

1 I do want to say, though, that on the heavy-
2 duty side, and again as we look at what the future for
3 heavy-duty vehicles and transportation needs are, that
4 continued investment in the heavy-duty sector is going to
5 be important, especially as we start to look at electric
6 vehicles, heavy-duty electric vehicles. And our upcoming
7 funding plan is going to provide -- we're proposing to
8 provide additional funding for electric vehicles, which
9 we think are going to be critical towards bringing those
10 vehicles into the marketplace much faster. We've seen a
11 significant amount of success already in that, and we
12 certainly want to build on that through this program.

13 The last thing I just want to touch on is the
14 heavy-duty advanced technology demonstration. I think
15 that's going to be absolutely critical as we start to
16 look at where is there an unfilled opportunity in the
17 marketplace for these technologies to move forward as we
18 work with our district partners and, in particular, about
19 local projects that they are pursuing, having that money
20 available at the state level, I think, is going to be
21 very important to moving these demonstration projects
22 forward so that they can be -- so that they can get
23 commercialized, and they can play a greater role in
24 addressing greenhouse gas and localized air quality needs
25 throughout the state. So I just want to emphasize that

1 we are fully supportive of that allocation, as well.

2 MR. PEREZ: Thank you, Erik. Robert Meyer.

3 MR. MEYER: Robert Meyer with the Employment
4 Training Panel. I just wanted to address Ralph's comment
5 regarding training for first responders. AT our last
6 month's panel meeting, we approved a project in the Los
7 Angeles Community College District that does have the
8 first responder training within it. I'd be glad to talk
9 with you, certainly, offline if there are other school
10 districts that have the same need in terms of addressing
11 it, and other regions of the state, glad to talk to them
12 about that, but we've actually approved that training as
13 part of the AB 118 and look forward to expanding on that.

14 MR. PEREZ: Thank you for that offer of
15 support, very helpful. Mr. Carmichael.

16 MR. CARMICHAEL: Thank you. First, a quick
17 thanks for the staff's continued support for natural gas
18 vehicle incentives, this is our top priority and we
19 appreciate staff's write-up and support for this
20 category. I'm in receipt of, and I think all the
21 Committee members are in receipt of, a letter from a
22 variety of companies and organizations, CALSTART, San
23 Joaquin Valley Air District, among others, that speaks to
24 the last line item in this category, the Medium- and
25 Heavy-Duty Advanced Technology Demonstration category.

1 And first let me say that I appreciate the enthusiasm and
2 size of their request because it will make everything I
3 ask for today look reasonable. More seriously, more
4 seriously, Jamie Hall is here from CALSTART and I imagine
5 he is going to speak to this during public comment, but I
6 do want to express my support for the importance of this
7 category, Erik just touched on it, for all the work we're
8 doing deploying clean vehicles in the near term, we need
9 to do more to develop that next generation, and in every
10 category of vehicle that we're talking about. And to me,
11 this is the most important category that isn't funded at
12 the level that it could be, I guess is the way to put
13 that. So, Jim, back to my question about any leftover
14 funds, I would put all leftover funds, you know, in that
15 \$4-\$5 million category towards this. Similarly, if
16 there's leftover funds from this round, I think this is a
17 top priority going forward. And I just want to register
18 that support. I'm not quite at the level, you know, the
19 dollar amount that they're proposing, but I appreciate
20 their enthusiasm, as I said at the beginning.

21 COMMISSIONER PETERMAN: And I'll just add on
22 that that, yes, we've heard from some of the Air Quality
23 Districts, the various parties, about the value of
24 increased funding in this area. I think you will note
25 from the last Investment Plan that was put out, there is

1 an additional million dollars in this category than was
2 initially proposed. And as I also mentioned in my
3 initial comments, as we are talking to the ARB about HVIP
4 needs and, immediately, if there's not the identified
5 need for what we've proposed in that category, then
6 that's an area where I could see transferring some of
7 that money to the demonstration category as being an
8 appropriate complement. But it's something we'll have to
9 go back to the table and look at, but thank you for your
10 comments.

11 MR. PEREZ: With that, Jan Sharpless.

12 MS. SHARPLESS: I guess we're all looking at
13 the same item within this category, and I was noticing
14 that your proposal is for the \$4 million for deployment
15 of medium- and heavy-duty electric, and \$4 million for
16 demonstration, then you back up and you look at the
17 history in this category from \$17 million to \$16.5
18 million, down to \$4 million, and it kind of brings up a
19 question of what's behind the thinking of why this
20 category has shrunk so.

21 MR. PEREZ: Yeah --

22 MS. SHARPLESS: And why is it equal for the
23 deployment and the demonstration?

24 MR. PEREZ: Yeah. And maybe that could be part
25 of the confusion, but in the report it actually did not

1 drop from \$16 down to \$8, when you combine those, that's
2 actually -- the \$16 was over two fiscal years.

3 MS. SHARPLESS: Okay, so it's --

4 MR. PEREZ: We combined the funding on that
5 one.

6 MS. SHARPLESS: So is it eight and eight,
7 approximately? So it's dropped by half?

8 MR. MCKINNEY: Correct. Jim McKinney here.
9 Yeah, so we had \$8 million allocated in '11-'12, \$8.9 in
10 '10-'11, and, yeah, the staff recommendation was to drop
11 that to \$4, and again, as we've done with some other
12 categories where we've recommended reduced funding, we
13 want to see how the market responds, so we put a lot of
14 money into this category, historically. And we want to
15 see what the return on investment is for those advanced
16 technology projects. So that's the staff rationale for
17 the reduced funding levels.

18 MS. SHARPLESS: So how long does it take for
19 you to determine what the return on investment is going
20 to be --

21 MR. MCKINNEY: I think --

22 MS. SHARPLESS: -- before you can decide
23 whether you should increase the funding level?

24 COMMISSIONER PETERMAN: And it might be worth
25 mentioning that, when the last recent solicitation was in

1 this area, which was we put it out a couple weeks ago,
2 was when we got responses for that, so there's just
3 recently been a solicitation, but I'll let Jim speak to
4 it.

5 MR. MCKINNEY: Yes, as I said in the initial
6 staff presentation, we did award \$16 -- almost \$17
7 million in this category. Right now, I don't have my
8 Benefits Report copy with me, so I don't remember what
9 the initial investments were, but to see those projects
10 built out to completion, to see if there's uptick in the
11 market for those, or if there's still, say, purely at the
12 demonstration phase, or is there commercial interest in
13 some of those? So, again, that is what staff is looking
14 for. I think this is a good conversation with the
15 committee members and the Commissioners right now.

16 MS. SHARPLESS: So can you explain to me, then,
17 why there are some stakeholders who believe that there's
18 enough demand out there and enough -- in the projects of
19 benefit that this item deserves to be increased in its
20 allocation? What's the difference between their
21 perspective and your perspective, other than a dollar
22 amount, in terms of how this market works?

23 COMMISSIONER PETERMAN: Jim can give you more
24 specifics, but I would say I don't know if there is a
25 difference in perspective, it's just about -- I think

1 there are a number of categories where we think there
2 could be benefit from more funding, and so I don't think
3 it's a difference of perspective so much as what's
4 available now and wanting to see what's happened with the
5 most recent ones, to the point about not having had the
6 projects yet built that we funded. But, Jim, you might
7 speak to this more.

8 MR. MCKINNEY: You know, my boss, Pat, I think,
9 laid this out earlier, it's a zero sum gain. So when we
10 increase funding in one area, we have to decrease funding
11 in another area. It's a bit of a sausage process. And
12 I'm glad that Eileen Tutt had the courage to kind of
13 throw out a marker on what she things should be reduced
14 and some other committee members have done that, as well.
15 So, again, at the time of this drafting, that was the
16 staff recommendation. Again, this is a good conversation
17 amongst the committee members, and that is the
18 committee's role, is to provide your perspective based on
19 your expertise.

20 COMMISSIONER PETERMAN: And I would also just
21 add, too, with those two categories, I think the line
22 between demonstration and deployment is still somewhat
23 fluid, and so that's one of the things that staff has
24 been looking at, about how to think, or what to divide
25 those types of funding categories, acknowledging again

1 that ARB has a program, HVIP, that deals with heavy-duty
2 vehicles, that does deal with employment incentives and
3 wanting to be supportive of that, and also continuing to
4 do the demonstration work, and so looking at those in
5 concert.

6 MS. SHARPLESS: So you could have gone with \$8
7 million for just the demonstration and left the
8 deployment blank, but because of the Air Resources
9 Board's programs and what they're doing, there's a
10 benefit to put \$4 million in the deployment to help the
11 ARB side of the program?

12 COMMISSIONER PETERMAN: Yes and that --

13 MS. SHARPLESS: Is that kind of the thinking?

14 COMMISSIONER PETERMAN: Yes, but I would say,
15 you know, going back to my initial comments, we still
16 have up to in terms of supporting ARB's program,
17 acknowledging that, yes, there is a value, there's an
18 opportunity for that funding, and if it's not going to be
19 used in the deployment side, there is an opportunity to
20 use some of that money for demonstration, or some of the
21 other under-funded categories. Erik.

22 MR. WHITE: Maybe I could add a little bit, as
23 well, Jan, on that. In our HVIP program, we continue to
24 invest in that, but what we have seen is the demand has
25 not been quite as great as we would have liked to have

1 seen it over the last several years, and so there is --
2 not substantial, but a sizeable amount of money that's
3 going to be available and will continue to be available
4 for deployment of these technologies, and so we're re-
5 looking at some of the incentive levels and the structure
6 of that program to try and generate some greater demand
7 for those funds. And I think we will see that,
8 especially on the electric vehicles, the heavy-duty
9 electric vehicle side, with the revised program. But
10 where we don't have an ability to make investments in
11 ARB's portion is on the technology demonstration side,
12 and that's where we really do look to CEC to make those
13 critical investments on the State's behalf, to ensure
14 that future technology we need is invested in today.

15 MS. SHARPLESS: Excuse me, could you tell me
16 what your level for deployment is? How would the \$4
17 million add to the total?

18 MR. WHITE: I believe that, with what we've
19 proposed for this upcoming year, we will have about \$20
20 million or so available and --

21 MS. SHARPLESS: Without the CEC --

22 MR. WHITE: -- and ARB HVIP funding -- yes,
23 without the \$4 million.

24 MS. SHARPLESS: So that would be \$24 million?

25 MR. WHITE: Yes.

1 COMMISSIONER PETERMAN: This is information
2 that we're all getting in real time, as well, and so we
3 just got some more certainty around how much they would
4 have, the \$20 million, and that is causing us to reflect
5 and decide whether the \$4 million should be appropriated
6 now in the deployment side, or whether to think about it
7 in Demo and other areas.

8 MR. PEREZ: Okay, Bonnie, and then we'll go to
9 Eileen.

10 MS. HOLMES-GEN: A couple -- do we have a chart
11 that does show the combination with when we look at the
12 Air Board funding and the CEC piece of this? And look at
13 some of these categories together, whether it's joint
14 effort?

15 COMMISSIONER PETERMAN: I would say no because
16 there is going to be a lot of -- I think that would be
17 valuable for the space generally to have that, you know,
18 we're talking about these two particular categories, but
19 for all these categories, there is multiple funding --
20 Federal, State, other incentives, and I'm wary of putting
21 together a chart like that without significant
22 consultation because we're going to miss some funding
23 source and seem like we're prioritizing something else.
24 But we're trying to address that somewhat in the write-
25 up, but, again, maybe Erik can speak to this, but they

1 just recently had a public meeting where some of this
2 information came out, and so it is more recent.

3 MR. WHITE: Yeah, we'll be taking our portion
4 of the AB 118 funding plan, the ARB's portion, for the
5 Air Quality Improvement Program, to our Board in June, so
6 we recently workshopped our upcoming funding proposal for
7 what we expect to be about a \$28 million program for the
8 '12-'13 fiscal year.

9 MS. HOLMES-GEN: Well, I just wanted to comment
10 that the -- in addition to the discussion about the
11 heavy-duty, the medium- and heavy-duty category here,
12 that this is an area where we can also get tremendous
13 near term air quality benefits, and so, you know, there
14 is such an obvious overlap of both the CEC and the ARB
15 mission in this category and I do think we need to look
16 closer at it and look at the additional opportunities
17 that we might have for expanding funding. And I wanted
18 to ask -- and just in that regard, I think that there's
19 going to be a big effort over the next couple of years to
20 really look hard out at the freight movement systems in
21 the state and how we can clean them up, what we can do
22 through both clean-up of fuels, vehicles, equipment, and
23 operational changes, efficiencies, looking at all of
24 these things, but I think that our program needs to work
25 closely with that effort to look at the bigger picture

1 and how we can clean up quickly in this area, and
2 especially in impacted neighborhoods.

3 And I just wanted to ask, on the light-duty, we
4 all agree that it's very important to have these light-
5 duty electric vehicle deployment incentives, and the
6 money is -- it's unclear, but it's probably not enough,
7 so what happens when the money runs out? What is the
8 process to make sure that we --

9 COMMISSIONER PETERMAN: ARB's program.

10 MR. WHITE: You're putting me on the spot,
11 Bonnie.

12 MS. HOLMES-GEN: You know, what -- how do we
13 know, is there a process in place so that we can get some
14 additional access to funding if we need it for that
15 category?

16 MR. WHITE: Well, our proposal does have
17 contingencies in it for what we will do if we do run out
18 of funding very rapidly. Within the program in years
19 past, we have established a waiting list for interested
20 purchasers of these vehicles, that they could get on, and
21 then we will continue to work and try to obtain some
22 additional funding for that. I think what we will do in
23 this upcoming year is really look at how quickly the
24 money is being expended and make some decisions relative
25 to what time of the year that occurs, and beginning to

1 have some conversations and some discussions about the
2 future of the CVRP program. Should it continue in its
3 existing form? Do we need to look at other policy
4 drivers to continue to expand the light-duty vehicle
5 marketplace for these types of vehicles? So I think it's
6 really going to depend on how quickly the money goes out,
7 and when that happens, and what some of the thoughts are
8 about what the future of the program is. So I don't have
9 a really good answer that, "in the following year, the
10 program is going to look like X," because we don't know
11 what that is yet, but I think there's a very real
12 possibility that it will look different than what it
13 does, has this year, and will for the upcoming year.

14 COMMISSIONER PETERMAN: Great. And, Erik, just
15 so -- obviously we're interested in what's happening with
16 your portion of the funding -- is there another meeting
17 scheduled where we can tell people where to go to get on
18 the right listserv to be participating in your forums?

19 MR. WHITE: Yeah, I believe -- I'm going to
20 look at my staff to see if we have a listserv for the --
21 we do have a listserv for the AQIP Program, so certainly
22 they can go the ARB website and sign up for that. Our
23 plan, though, is to take our funding plan to our Board in
24 June, so that should be the third Thursday in June,
25 thereabouts, it should be -- so I would expect that the

1 final proposed funding plan will be out about sometime in
2 May for that.

3 MR. PEREZ: Thank you, Erik. And we'll go to
4 Eileen Tutt next.

5 MS. TUTT: Thank you, Pat. I'm really sorry, I
6 somehow missed that this line item was in that category,
7 but I meant to comment on it. I just want to say,
8 because in our written comments we did suggest that this
9 medium- and heavy-duty advanced vehicle technology
10 demonstration needs to be increased not quite as much as
11 suggested by our colleagues, and we suggested it be
12 increased by \$10 million, and we suggested where the
13 money should come from. And, again, I'm going to stick
14 my neck out, although I will point out that no one else
15 has, we suggested -- oh, did Bonnie? Okay, so -- that we
16 look at the natural gas and propane vehicle incentives.
17 And, again, not because -- just because of the relative
18 benefits, we assume especially natural gas, which is
19 incredibly important wonderful fuel, will benefit from
20 the demonstrations because many of these are natural gas
21 hybrids with electric drive assist and electric --
22 they're hybrids. So I really think that this number
23 needs to go up. If I understand, and this is my question
24 to you, if I understand right, this category was over-
25 subscribed pretty significantly, right? And I'm just

1 going to say that what was most compelling to me about
2 this letter and about the conversations that I've had
3 around this category was from the local governments and
4 relating to air quality and environmental benefits. We
5 really have got to reduce these emissions at the local
6 level. And the contribution of this category to those
7 problems is huge. So I would just encourage you to, you
8 know, incorporate it, at least if you want to go
9 somewhere between -- you know, I would incorporate our
10 suggestions if I were writing this report, and increase
11 that number, again, we suggested up to \$10 million
12 because of the impacts of this category and the -- again,
13 we're sort of at this cusp right now here within the
14 electric vehicle and the hybrid electric in the medium
15 and heavy, and if we want to meet our air quality, and
16 our economic, and our greenhouse gas goals, we've got to
17 transform that sector. And it is the most challenging,
18 so given that it was over-subscribed, given the need, I
19 would suggest we increase this category.

20 MR. PEREZ: All right. Thank you for your
21 courage, Eileen. And I can see from the expression that
22 Mr. Carmichael, you fully support the recommendations.
23 So thank you for that.

24 One thing I'd like to do is pause for a few
25 minutes. We have some people from the public who have --

1 it looks like flight complications in terms they have to
2 be out of here in a little bit, and I thought what we
3 would do is open it for a few minutes to take some public
4 testimony from those who requested to speak through our
5 Webcast, some of them may be here, that we take a few of
6 them to comment on the first three categories that we
7 have discussed this morning.

8 And if I may just for a moment ask Kyle Jenke
9 to share your comments, recommendations, and reaction to
10 the discussion this morning?

11 COMMISSIONER PETERMAN: And I would say, if you
12 have to leave, you can comment on any part of the plan,
13 but all of us plan to get out of here within the next
14 couple hours anyway, so don't worry if you really don't
15 have to go right away, and save your comments for the
16 end, because I will be here through that and I also have
17 a flight to catch later today, so there will be a firm
18 stop.

19 MR. JENKE: All right. Thank, guys. It's Kyle
20 Jenke from Edeniq and, just for those of you who don't
21 know, a quick background, we are a California-based
22 cellulosic fuels technology company headquartered down
23 here in Visalia. We are also part of the California
24 Advanced Energy Coalition, which includes a number of
25 existing ethanol producers, some other advance technology

1 companies, and then also E2, who I know you guys are
2 familiar with.

3 You know, first, I'd just like to say thank you
4 quickly for giving me the opportunity to speak and I just
5 have two points I'd like to convey here today. The first
6 is, together with E2, we visited a number of the
7 legislators in support of AB 523 a couple weeks ago,
8 which, as you know, the CPRIP program, the next
9 generation feedstocks by the middle of next year. You
10 know, I felt our messages were really well received by
11 the Legislature and, if I'm not mistaken, the CEC has
12 received a letter from Chairman Gordon and others in
13 support of CPRIP. So we just want to convey our support
14 for that.

15 Secondly, we support full funding of the CPRIP
16 program in the 2012 Investment Plan. Our view here is
17 that it's a very important incentive to help existing
18 ethanol plants integrate into next generation
19 technologies like ours. These plants are beginning to
20 make investments today, you've seen them working with
21 companies like Edeniq, ourselves, and we'd like to be
22 able to see them continue to do this. So I just wanted
23 to bring up these two points and I thank you for your
24 consideration.

25 MR. PEREZ: Thank you, Kyle. I'll next move to

1 Ken Mikenney, I believe, and Nina Kirsh from PG&E, I
2 believe you had a constraint with your time? So please
3 come forward and --

4 COMMISSIONER PETERMAN: We moved the podium so
5 we could all see each other. If you'd like to sit in
6 this seat here and offer your comments?

7 MR. MCKINNEY: So first of all, thank you
8 everybody for allowing us to speak here. My name is Ken
9 McKinney, I'm the Fleet Sustainability Program Manager
10 for Verizon Communications. And we're going to talk
11 today about a space that is yet unfunded, which is Class
12 2A and particularly with electric -- plug-in electric
13 vehicles. So we're going to give -- Nina is with PG&E,
14 so she's going to give her position on what PG&E feels
15 about this space, and I'm going to talk about Verizon.
16 So, next slide, please.

17 So, first of all, what is a Class 2A hybrid
18 plug-in? It's got a GVW of 6001 to 8,000 pounds.
19 Obviously, it's going to get its energy, or at least the
20 first part of its daily energy from energy off the Grid,
21 from plug-in. It does have the ability to continue to
22 operate with ICE engine that turns a generator. And
23 that's important to us, and we'll get to that when I talk
24 about our fleet. The Class 2 would be the commercial
25 version of the Chevy Volt, so for those of you familiar

1 with that, and if you're not familiar with what EREV or
2 Extended Range Electric Vehicles are. Most common
3 platform is light-duty pickups and commercial -- or
4 light-duty pickups and cargo vans, and as I said, there
5 are no incentives in this space right now. Next slide,
6 please.

7 So I'm representing Via Motors here for just a
8 minute and this is Via's number, so any questions to this
9 slide will have to be directed to Via, not me. Their
10 findings have shown that the typical fleet application
11 for a Class 2 can reduce emissions and fuel up to 80
12 percent, that's based on a drive cycle, of course, and
13 that drive cycle with 15,000 miles per year, we can --
14 they say we can see up to 83 percent of the average
15 vehicle running on battery alone. And, as I will speak
16 in a minute, we feel that works for us, as well. When we
17 do see the need for the vehicle to operate longer than
18 the battery will sustain, then it does have the ability
19 to keep going on the ICE, and that's still more
20 efficient. Of course, you're averaging down that zero
21 emission part as you continue to drive on gasoline, but
22 you know, unless you drive a really long ways, you're
23 still going to be way ahead of the game.

24 The extended range functionality really
25 mitigates the range anxiety that a lot of fleet managers

1 experience with buying some of the alternative fuels and,
2 of course, BEVs. And one of the things that this
3 particular technology can offer is an exportable power
4 option that can allow us to do some work or provide some
5 energy during emergencies. Next slide, please.

6 So I'll talk about Verizon's fleet now. Our
7 domestic telecom fleet operates around 32,000 vehicles.
8 About 17,000 of those vehicles are Class 2, so that kind
9 of gives you an idea of the scope of Class 2 out there.
10 That's 54 percent of our entire fleet. In California
11 alone, we operate 2,867. Of those 2,867 -- these are all
12 on-road numbers, not trailers, or mobile tool, or
13 generators or anything, so talking stuff that rolls down
14 the highway -- of those 2,867, 2,101 are Class 2, so 73
15 percent, so we beat the national average for our company
16 by 20 percent here in California, so it's a great
17 opportunity for us.

18 This application would drive on the average of
19 9,200 miles a year, which 260 work days works out to
20 about 35 miles a day, fits well in the all-electric mode
21 most of the time, but the -- and it gives us the
22 opportunity to maybe not burn any fuel unless we have
23 some strange circumstances. As well, it offers us
24 exportable power to either do job site work, or, in the
25 case of an emergency, maybe power our network and

1 continue to keep communications up. The problem that we
2 see with this technology, the only problem we see with
3 this technology, is with that same short drive cycle, we
4 have a long ROI, so what we need to do to make this thing
5 financially sustainable for Verizon is to find out a way
6 to get that cost down. And we know that will come with
7 the economy of scale, but we need something to jumpstart
8 it. And we would sure like to see something happen in
9 that Class 2A category. So, and I know CARB is here, so
10 you know, the pitch goes to you guys, as well. Now, Nina
11 is going to take over and talk about PG&E.

12 MR. PEREZ: Thank you.

13 COMMISSIONER PETERMAN: Why don't you go to the
14 podium?

15 MS. KISCH: Great. Hi, my name is Nina Kisch,
16 I'm a Manager in the Transportation Services Department
17 at Pacific Gas and Electric Company. We have
18 approximately 1,800 Class 2A, that's that half ton unit
19 in the fleet, and our average replacement is about 250
20 units annually. What we're finding is that this
21 technology, the plug-in electric with on-board
22 generation, is really the best technology mix for us, it
23 gets us 40 miles of all-electric every day, plus that
24 emergency response capability. Obviously, we're
25 primarily in the business of emergency response and, if

1 we are somewhere, that means the electricity is not on,
2 and so there won't be generation for that vehicle if it's
3 all-electric. It's not really so much range anxiety as
4 it is a range fact, it just doesn't go any farther.

5 In addition, as Ken was saying, the on-board
6 generation allows work crews to run all of their power
7 tools and lights right from the truck, itself. One day,
8 when we see more on-board generation and output
9 available, we should have the ability to power customers
10 back on during outages, and we think that we can get that
11 amount of generation output up significantly so that we
12 can look at minimizing planned outages, as well, it has
13 that potential to really drastically change the way we do
14 our work.

15 Replacing a traditional gasoline-only pickup
16 with a PHEV could result, we've estimated in our
17 application, an annual savings of about \$2,700. What
18 we're looking at is 40 miles all-electric; our trucks run
19 about 15,000 miles a year, that's 10,400 all-electric
20 miles of about a 70 percent reduction in gas, in our
21 application.

22 The reason that we think incentives are needed
23 for this technology at this time is because, even though
24 the payback calculation is good, somewhere around five or
25 six years, most fleets, including ours, can't afford the

1 upfront premium price on these advance technology
2 vehicles. Fleets such as PG&E and Verizon look at
3 replacement number of units each year and we're required
4 -- we need a certain number of units that we have to get
5 into the fleet to replace old ones leaving, and so if the
6 premium price is too prohibitive, that means we're
7 reducing the number of vehicles that we can buy, and
8 that's not going to work. And we're very unlikely to
9 request or get additional capital, not just PG&E, but
10 other fleets, as well, to buy significantly more
11 expensive vehicles. And so we think that, given that
12 risk on the fleet side, that incentives can be used to
13 mitigate the productivity risks from the manufacturer
14 until the business model can become self-sufficient, so
15 move the risk away from the fleet taking all of the
16 productivity risk in a payback. Next slide.

17 We're just summing up that this is a huge
18 portion of the businesses' commercial vehicle fleets and
19 that the substantial market share is missing because of
20 the prohibitive incremental cost of the technology, so we
21 think that incentives would bridge that gap and
22 accelerate economies of scale. Thank you very much.

23 MR. PEREZ: Thank you. I have a couple of
24 other speakers who may have time constraints. If you do
25 not have actual time constraints, I would ask that you

1 stick around for a while so that we can proceed with the
2 formal discussion with the Advisory Committee. But let
3 me just ask, let me apologize upfront if I corrupt these
4 names, but Volker Amelung and Mira Inbar, I believe, are
5 you online or here? And are you facing a time
6 constraint? Please come forward.

7 COMMISSIONER PETERMAN: So as you come up, I'll
8 just say generally, in terms of public comment, please
9 come up and comment, we ask, of course at all Commission
10 proceedings, that public comments be three minutes or
11 less. We have a timer which we are not going to employ
12 because it can be a little alarming when it goes off, and
13 so try to stick within that area. If I find you going
14 longer, especially since we are behind, I will politely
15 ask you to sum up. Thanks.

16 MS. INBAR: Hi. My name is Mira Inbar with Dow
17 Kokam, we're an advance lithium ion battery manufacturer.

18 MR. AMELUNG: My name is Volker Amelung, I'm
19 Managing Director at Quantum Technologies. Let me start
20 first. Go to the next slide. I'll try to do it very
21 quickly. I think we talked about the Class 2A vehicles
22 which, you know, I think you need to poke a little bit on
23 what those vehicles actually represent. When you look at
24 those bubbles here, you see that the Class 2A trucks,
25 because of the sheer volume, is actually the second

1 biggest fossil fuel burner right after the Class A
2 trucks, so it's colored in blue here right now with
3 highlights at these vehicle class, the whole vehicle
4 class is not considered for incentives over here. You
5 know, obviously, when you look at individual vehicle, you
6 know, it's not one of the largest fuel burners, but when
7 you look at the class of vehicle it is, it represents,
8 you know, it's a huge huge contributor to air pollution.
9 Next slide, please.

10 And it is also the biggest vehicle class in
11 fleets, you know, there is a total of around 4.5 million
12 vehicles in fleets today, with an annual renewal number
13 of around 580, 550, it depends on how you look at it.
14 And I think there's a huge potential within these
15 vehicles, in all new purchases, who can be plug-in hybrid
16 electric or electric vehicles. Now, when you look at how
17 it distributes, or who owns them, you know, the majority
18 of Class 2A vehicles are in small fleets and there are
19 lots of capital constraints. Next slide, please.

20 Just a quick overview. This is the technology
21 we're talking about, it's a plug-in hybrid electric
22 truck, works 40 miles all-electric, zero emission, it
23 then gets into a hybrid load following mode. This
24 technology is available today, you see a picture of a
25 running truck, and it is manufactured in California.

1 Next slide, please.

2 Now, the benefits are very clear. Once this
3 technology is supplied, you experience a huge reduction
4 in carbon emissions. You know, you see the draft on
5 there, obviously it is 100 percent when you drive it
6 electrically, and the more you drive in a daily cycle
7 without recharging, you know, obviously the benefit
8 reduces. And when you look at -- when you apply a lot of
9 vehicles, you know how many tons of Carbon Dioxide you
10 save? It's a very compelling number. And the large
11 volume of fleets, once this is supplied, it's very
12 important to do that. Next slide, please.

13 Now, obviously job creation in California, we
14 are using the RIMS 2 model from the Department of
15 Commerce, which I think California uses themselves, you
16 know, we are looking at about 100 new direct employment
17 opportunities at Quantum and Orange County, and about 300
18 additional indirect and end use new employment, and that
19 is just basically from the direct employments and when we
20 look at the supply base, you know, they have to talk for
21 themselves, but there's a huge other opportunity here
22 which I think should not go to waste. Thanks.

23 COMMISSIONER PETERMAN: Your company was one of
24 the winners in our -- awardees, winners -- in our first
25 solicitation -- we're all winners -- and our first round,

1 so glad to see that you're still in business!

2 MS. INBAR: So are we, because they're our
3 customer. We've done our own market surveys and this is
4 one that we did with Fleet Answers with about 500
5 different fleets in the U.S., with capital budgets
6 between \$5 and \$20 million. And there is a proclivity to
7 buy this technology specifically for the reasons that
8 Nina said, which is that there is no other alternative
9 fuel that will provide that emergency response time.
10 Next slide.

11 So the need for incentives we're asking for
12 \$10,000 to \$12,000 per vehicle with \$5 million in this
13 year's plan. This would help support those fleets that
14 do, as a matter of reality, have limited capital budgets,
15 so they have to buy a certain number of vehicles a year.
16 If a PHEV is more expensive, that lowers the total volume
17 they can buy. It has the obvious benefits that Volker
18 mentioned in terms of emissions reductions and, as a
19 battery company, I can tell you that costs are coming
20 down with volume, but we need to get that volume to start
21 seeing economies of scale. Next slide.

22 So this is just to summarize again the PHEV is
23 really the only technology for this class and this
24 application that makes sense. And we're seeing a lot of
25 benefits, but we need the incentives to jumpstart the

1 market.

2 MR. PEREZ: Thank you very much.

3 COMMISSIONER PETERMAN: There is a question, if
4 you wouldn't mind coming back to the podium, we're going
5 to have a quick question from Eileen Tutt.

6 MS. TUTT: Just very quickly. Why is it that
7 these vehicles -- I've heard the last four speakers talk
8 about the same thing -- why is it that they are not part
9 of the HVIP program? Or maybe this is an Erik question.

10 COMMISSIONER PETERMAN: Yeah, this is probably
11 a question for Erik.

12 MS. TUTT: I don't understand that. This makes
13 a lot of sense, but I don't understand why they wouldn't
14 be.

15 MR. WHITE: Our program, I don't think, has
16 gone down to cover vehicles in this duty class. It's
17 something that has come up -- well, the commercial
18 vehicles have moved from CVRP to the HVIP program last
19 year, I believe, so that would have been where the
20 appropriate funding element of this would have been, but
21 this case up at our workshop that we recently had and I
22 think we were in some discussions about how -- is there a
23 way to address these vehicles and the need and, Lucy,
24 maybe you have some comments -- since I was not at the
25 workshop.

1 MS. NEGRETE: This did come up at our workshop
2 and we're, in fact, going to have a working group -- oh,
3 this is Lucy Negrete, ARB -- we're going to have a
4 working group about this particular topic because this
5 has come up this year, it hasn't come up in the previous
6 years. On the light-duty side, because it is a light-
7 duty vehicle, yes, they can get funding as the CVRP, but
8 the amount was a lot smaller when you're talking about
9 the size of the vehicle and they're talking about in the
10 commercial area, so it is one of those -- it's a dilemma
11 that we're going to be looking at, and we're going to
12 have a working group just to see if we can get them into
13 the HVIP.

14 MS. TUTT: Okay, so you guys support it, it's
15 just that it's kind of in this odd category that --

16 MS. NEGRETE: It's in an odd category and it's
17 --

18 MS. TUTT: Okay, okay, and you're trying to
19 resolve how to --

20 MS. NEGRETE: -- we're trying to resolve that
21 right now.

22 MS. TUTT: Perfect. Thank you.

23 COMMISSIONER PETERMAN: Thank you for
24 presenting this information to this group so that we are
25 aware, and I think we want to make sure that we follow

1 what's happening with ARB and keep us aware as we plan
2 the '13-'14 plan, in particular, about if there are some
3 opportunities that the Advisory Group should be thinking
4 about.

5 MR. PEREZ: Thanks. The next person who has a
6 constraint is on the East Coast, representing the United
7 States Air Force, Cameron -- and I'm not even going to
8 attempt to pronounce your last name. Please introduce
9 yourself if you're online? Cameron, can you hear us?

10 MR. GORGUINPOUR: Hello?

11 MR. PEREZ: Hello? Is this Cameron?

12 MR. GORGUINPOUR: Yes. Can you hear me now?

13 MR. PEREZ: Yes. Could you please introduce
14 yourself for the record for us?

15 MR. GORGUINPOUR: Yes, absolutely, sorry, I was
16 having a little trouble. I'm on my cell phone right now.
17 My name is Camron Gorguinpour. I am Specialist Sentry
18 Assistant Secretary to the Air Force, Installation
19 Environment and Logistics. And I am the Executive Agent
20 for DOD's Plug-in Electric Vehicle Program.

21 COMMISSIONER PETERMAN: Excuse me --
22 Commissioner Peterman -- we have a very good sound
23 system, so we hear everything going on around, so if you
24 could speak louder, perhaps, even isolate yourself in a
25 more quiet area, we would greatly appreciate it. We want

1 to make sure we hear all your comments.

2 MR. GORGUINPOUR: Absolutely. I'm in a quiet
3 location right now, I don't know where all the background
4 sound was coming from.

5 COMMISSIONER PETERMAN: That's already better.

6 MR. GORGUINPOUR: It's gone away? Okay. So it
7 was suggested that I mention the work that we're doing in
8 the Department of Defense, all-electric vehicles, for
9 this meeting, as it may be relevant to some of the
10 decisions you all make, okay? And just sitting and
11 listening on the call, it's pretty interesting stuff
12 going on out there. So I'm appreciative of all the work
13 you guys are doing.

14 So I was tasked with essentially creating this
15 project about 18 month ago to look at DOD's non-tactical
16 ground fleet, which includes about 200,000 vehicles
17 worldwide, to see if there might be an overarching
18 strategy that we could implement that would enable us to
19 texture a large scale integration of plug-in electric
20 vehicles into our fleet in a relatively short timeframe
21 and, of course, with as little incremental cost as
22 possible. And so we initiated a number of studies and
23 analyses. Among the things that we did as part of the
24 broader project was announce that Los Angeles Air Force
25 Base will be the first Federal facility to replace its

1 entire fleet with PEVs. And that's hopefully going to
2 happen this year. So that's underway. And all of this
3 is to say that we are now at sort of an endpoint in our
4 analysis where we're assembling all the data and looking
5 at where we might be able to look towards executing sort
6 of a larger scale procurement. And as we look across the
7 country regionally, there are a few locations that stand
8 out as potential candidates, California being one of
9 them. One of the reasons why California stands out is
10 because they have a large number of large bases in your
11 state, which means a lot of vehicles that it could
12 potentially impact, but also you guys are in a
13 deregulated utility market that has access to frequency
14 regulations, which, as we started looking at how we could
15 execute a large scale deployment of EVs, through the use
16 of Vehicles to Grid activities, has stood out as one of
17 the things that we are interested in. And among the
18 Vehicle to Grid activities, participation with frequency
19 regulation is among the top priorities. So all of this
20 is to say that we have done a pretty thorough job looking
21 around, we are in the process of running our business
22 case analyses. California looks like a location where we
23 may choose to focus on, to the extent that other
24 incentive programs are in place, it might help us improve
25 the overall financial outlook, such as the HVIP Voucher

1 Programs, and essentially some other things. Similarly,
2 those will be weighed as we identify if and how to
3 proceed. I should give a caveat there, you know, we've
4 got this budget problem in D.C. that some of you might be
5 aware of, I hear you guys have some budget issues, too,
6 out there. So there's no guarantee that we will do
7 anything other than to see that we're working very hard
8 to figure out how we can make things work within our
9 fiscal constraints in the short term. So that's
10 basically what I have to say. I hope it's helpful. And
11 I'm happy to answer any questions of interest about what
12 we're doing at DOD.

13 COMMISSIONER PETERMAN: Thank you very much for
14 providing a bit more detail about your plans. I think
15 we're excited to hear that the Air Force and various
16 military branches are investing in alternative fuels and
17 transportation, and looking to California to do that.
18 Just so we're all on the same page, this is one of those
19 opportunities that the staff is thinking would fit into
20 the emerging opportunities, innovative technology, and
21 federal cost share, since there will be significant
22 investment by the Federal partner in this case. Cameron,
23 thanks for coming online. I don't know if anyone has any
24 questions for him at this point in time? We've got one
25 question for you, if you don't mind, Cameron, from Simon

1 Mui of NRDC.

2 MR. MUI: Hi, Cameron. I just wanted to -- at
3 the risk of speaking for the PEV Collaborative here,
4 which Jim Boyd sits in the audience, there was a trip
5 actually, just several weeks ago, to the CAISO where the
6 California Plug-In Vehicle Collaborative members, many
7 members, went to visit in Folsom, and we learned a lot, I
8 think, about some of the activities you're interested in,
9 frequency regulation being one of them. And I would
10 encourage you to reach out to the PEV Collaborative, I'm
11 happy to put you in touch with the folks there, as well,
12 which we're a member of. So thank you.

13 MR. GORGUINPOUR: And, you know, I had hoped to
14 make it out to that meeting, it just didn't quite fit in
15 in my schedule, given sort of varied (inaudible) working
16 on the broader related issues, so I heard it was a good
17 event and I'm happy to communicate further. I should
18 also point out that, as far as the L.A. project, we've
19 had just a tremendous level of support in CAISO,
20 California Energy Commission, California Public Utility
21 Commission, and Southern California Edison, so we're
22 really grateful for all the support we've been getting in
23 California for the work we're doing, and hoping to do in
24 the future.

25 CHAIR WEISENMILLER: Thanks again. This is

1 Chair Weisenmiller.

2 MR. PEREZ: Okay. Thank you. We'll take the
3 next speaker who has a time constraint, Joe Gershen. Are
4 you there?

5 MR. GERSHEN: Yes, I am. Can you hear me?

6 MR. PEREZ: Yes, we can. Please proceed.

7 MR. GERSHEN: Thanks. My name is Joe Gershen.
8 I'm with Cruzar Renewable Energy and I'm speaking on
9 behalf of the California Biodiesel Alliance. I'd like to
10 read a letter into the docket --

11 CHAIR WEISENMILLER: You have three minutes, so
12 if you want to -- we're happy to get the letter into the
13 docket, but if you could summarize it, it would be better
14 than reading it. Thanks.

15 MR. GERSHEN: Sure. Basically, we'd like to
16 strongly object to the complete lack of infrastructure
17 funding for biodiesel in this draft, and to request that
18 you reconsider your decision. Biodiesel currently
19 provides a majority of the environmental and carbon
20 reduction benefits under the LCFS, but it's being grossly
21 under-funded under AB 118. We feel that this is not only
22 unfair, but it's bad policy to the State, and must sure
23 be based on inaccurate information. Unlike renewable
24 diesel, biodiesel is today's fuel and your own reports
25 state biodiesel sells 10 times better than renewable

1 diesel nationwide, renewable diesel suffers economically
2 when the fuel is pulled (inaudible) process. Also, as
3 renewable diesel makes its way into the marketplace, it
4 will be subject to all of the regulatory requirements
5 that exist for new fuels, which biodiesel has been
6 working through for many years. Currently, the biodiesel
7 industry, our production is up from 5.7 million gallons
8 in 2010, up to about 32 million gallons anticipated this
9 year, two-thirds of our feedstock is used cooking oil and
10 yellow grease, which is renewable second use fats and
11 oils. We've been working on this quite extensively and
12 we would like to really object to the lack of funding and
13 we want to better understand where your rationale is
14 coming from.

15 CHAIR WEISENMILLER: Okay, thank you.

16 MR. PEREZ: Okay, next speaker, Atul Deshmane,
17 I believe, hopefully I didn't corrupt that name too bad.
18 Atul, are you there?

19 MR. WAHL: He's also running late, I'm Martin
20 Wahl. I work with Whole Energy.

21 MR. PEREZ: Would you like to come forward to
22 the microphone, introduce yourself on his behalf?

23 MR. WAHL: My name is Martin Wahl, I'm with
24 Whole Energy. And Atul was running late, also, so if
25 we're going to be even delayed further, we could delay

1 for him, as well. Is there someone else on the agenda
2 that could move in now?

3 MR. PEREZ: Yes, we could.

4 MR. WAHL: Okay.

5 MR. PEREZ: Thank you. The next person, Paul
6 Camp.

7 MR. CAMP: Hi. This is Paul.

8 MR. PEREZ: Good morning, Paul.

9 MR. CAMP: Good morning. Thanks for giving me
10 an opportunity to speak. My name is Paul Camp. I'm with
11 a company, a process technology company from Denmark
12 called Inbicon, and Inbicon is a subsidiary of Danish Oil
13 and Natural Gas, or DONG Energy which is the largest
14 power and heat generator in Denmark, in Northern Europe,
15 and we also have the largest cellulosic ethanol plant in
16 the world in operation there in Denmark. And we have
17 been working very closely with California ethanol
18 producers at a co-location platform by which we can make
19 ultra low carbon gallons of cellulosic ethanol and also
20 substantially reduce the greenhouse gas footprint of the
21 existing plants in the existing industry, in a way
22 similar to the way Brazilian sugarcane ethanol plants
23 operate, where they use a byproduct to produce the power
24 necessary.

25 I've been working with Pacific Ethanol on

1 various things for probably about seven or eight years
2 now, and I've gotten to know the rest of the California
3 ethanol industry and stakeholders like E2, as we're part
4 of the California Advanced Energy Coalition. We've made
5 several trips to the Air Resources Board and recently
6 visited the State House and some of the other energy and
7 air quality departments, that was in March. And we felt
8 there was a lot of support for CFIP, and I think, in the
9 short term, CFIP is very important because it's an
10 incentive for the existing industry and for the success
11 that the existing industry is having, and ethanol still
12 is far and away the biofuel that is providing the most
13 value for clean air and also economic benefits in jobs.
14 So I am here today to back CFIP, and thank you for LCFS
15 because LCFS provides us with an incentive to do this co-
16 location platform in California first, but it's the kind
17 of co-location platform that the rest of the industry can
18 also adapt so that we can truly include the greenhouse
19 gas and carbon footprint of our entire biofuels industry.

20 COMMISSIONER PETERMAN: Thank you very much.

21 MR. PEREZ: Okay, the next two speakers who I
22 believe are in-house, I just want to see if, indeed, you
23 are on a time constraint. That would be Andreas from
24 BMW, as well as Jamie Hall from CALSTART. Are you
25 available to stay for the next couple hours?

1 COMMISSIONER PETERMAN: Well, I want to give a
2 heads up to that, I'm anticipating working through the
3 rest of this in the next 30 minutes, and going back to --
4 I mean, we don't want to get a shortage of opportunity
5 for comment, but our next -- I think, frankly, the most
6 discussion is on the conversation we've already had, so I
7 think if we could get some consensus from the group here
8 at the table, maybe we can get through everything in the
9 next half hour and we'll be back for -- Andreas, can you
10 wait for that long? Awesome.

11 MR. PEREZ: Thank you.

12 COMMISSIONER PETERMAN: Let's get back to it,
13 then.

14 MR. PEREZ: Okay, so what we'll do is we'll
15 save the emerging opportunities for last and move
16 directly onto Manufacturing. So we're seeking comments
17 on the Manufacturing category.

18 COMMISSIONER PETERMAN: Yeah, Tim Carmichael.

19 MR. CARMICHAEL: Can I just take one minute to
20 clarify something that was brought to my attention by
21 another Advisory Committee member? I just want to make
22 sure that everyone has the same understanding that I do,
23 and it may not be the case for the Advisory Committee
24 members. CEC is providing with their AB 118 money
25 incentive funding for natural gas and propane vehicles.

1 ARB is not providing any money for those types of
2 vehicles with their AB 118 money. They are providing
3 money for electric vehicles, plug-in electric vehicles of
4 various sizes and, you know, back to a few comments that
5 have been made today, you look at this chart and you
6 think, wow, why is natural gas getting all the money?
7 And it's important to know that context and at least some
8 of our colleagues may not have been clear on that. And I
9 just wanted to get that on the record. I know CEC staff
10 and ARB staff are clear, but others that are watching or
11 coming into this process for the first time may not be
12 clear.

13 COMMISSIONER PETERMAN: That was a fair point.
14 I would also say, I mean, I'm supportive of an idea of
15 eventually having some chart that can lay out the primary
16 funding, we won't get it in this turnaround, but
17 something could be done if someone wants to put it
18 together, or working with our staff to do that for the
19 next one, that would be good.

20 MR. CARMICHAEL: Thank you. On Manufacturing,
21 I made a big plug for this at the last meeting, I think
22 this is an important category. One thing that I'd like
23 the staff to clarify, their current thinking, how do you
24 feel about the eligibility of a company that manufactures
25 components in California, as opposed to vehicles? For

1 example, somebody --

2 COMMISSIONER PETERMAN: You're eligible.

3 MR. CARMICHAEL: Okay, no question about that,
4 that's -- okay, thank you very much.

5 MR. PEREZ: Okay, Ralph.

6 MR. KNIGHT: I just wanted to make one more
7 comment before we jumped out of the heavy-duty vehicles.
8 We're at a point now on a project to take a CNG Bus,
9 okay, so I'm still working CNG, a CNG bus and convert it
10 to a hybrid, so we're right there at that point right now
11 to be able to do a project at that demonstration area.
12 So, just so you know, we're working both angles and every
13 angle out there that there is.

14 MR. PEREZ: Okay, Peter Cooper.

15 MR. COOPER: Yeah, Peter Cooper with the Labor
16 Federation, and strongly support the \$20 million towards
17 manufacturing. And I just noted in the most recent
18 Investment Plan, investment in manufacturing has
19 significant job creation potential, as well as kind of
20 tertiary and additional job creation impacts. I think
21 that you've studied the Economic Policy Institute
22 regarding that. So we would strongly support that
23 investment amount. Also would encourage the Energy
24 Commission to look at the benefits report that just came
25 out this past fall when considering the variety of

1 categories under discussion with an eye towards the job
2 creation potential for each of those categories.

3 MR. PEREZ: Thank you. Robert.

4 MR. MEYER: Speaking for the Employment
5 Training Panel, I would also like to support the support
6 for manufacturers in California, we've actually seen a
7 great number of small to medium manufacturers that are
8 expanding and even locating new facilities here in
9 California. With Employment Training Panel funding, any
10 manufacturer can participate in a training program. We
11 would like to continue our outreach and support for
12 California manufacturing. Thanks.

13 MR. PEREZ: Thank you. Jan.

14 MS. SHARPLESS: Yes. Is this category over-
15 subscribed? In the past, have you had more requests than
16 you've had?

17 MR. PEREZ: Yes, we have.

18 MS. SHARPLESS: So you have an indication that
19 the \$20 million is quickly going to evaporate once you do
20 the solicitation?

21 MR. PEREZ: You're talking about demands of
22 over \$100 million for this type of program, it's pretty
23 pretty significant.

24 MS. SHARPLESS: And what are the grant levels
25 that you -- is there a minimum grant level request?

1 MR. PEREZ: I have to think, so \$1 in \$10
2 million is the minimum, so --

3 COMMISSIONER PETERMAN: One to two.

4 MR. PEREZ: Okay.

5 COMMISSIONER PETERMAN: One to two, the minimum
6 10, the cap.

7 MS. SHARPLESS: Okay, so when they come in with
8 their proposals, the option that they would receive would
9 be somewhere between \$1 to \$10 million?

10 MR. PEREZ: Correct.

11 MS. SHARPLESS: So two projects could take the
12 whole amount? Okay.

13 MR. PEREZ: Okay, who else do we -- Peter, did
14 you have something to add? Okay, is that it for
15 Manufacturing? Okay. Okay, Workforce Development and
16 Training, quickly related -- closely related, I should
17 say. I imagine Robert --

18 COMMISSIONER PETERMAN: You're in high support
19 of it, hopefully?

20 MR. MEYER: Yeah, Robert Meyer with the
21 Employment Training Panel. We'd like to thank the
22 Commission formally, as this is our area, for their
23 efforts, as well as staff. ETP has, I think, been
24 successful in implementing the program and we have built
25 a few regional models working particularly and closely

1 with the PEV Collaborative to expand our funding
2 blueprint to statewide sort of networking with re-
3 deployable contracts, so we've looked to build and fund
4 contracts servicing a wide range of areas, and we look to
5 continue to expand them as we support the outreach of the
6 statewide collaborative into each of the local and
7 regional efforts. This enables us to take advantage of
8 the local and regional expertise, particularly local
9 community colleges, and workforce investment board, as
10 well as larger trade and industry-based associations. So
11 we look forward to continuing to do that and fund
12 programs specifically in these areas.

13 MR. PEREZ: Thank you. Okay. John Shears.

14 MR. SHEARS: Yeah, just some -- a clarifying
15 question, or maybe just a forward-looking observation.
16 By models, you're basically just talking about deployment
17 models for how to get this money out there and set up the
18 training programs?

19 MR. MEYER: Well, these are actually -- we're
20 funding the training that's actually occurring, so the
21 contractor develops the program, they select trainers,
22 identify the actual training needs for the job skills,
23 within their specific technology and industry. It must
24 specifically focus on the goals of the Investment Plan
25 and, then, we work with the contract development through

1 the contract. The reimbursement is actually based on the
2 training being delivered to the workers in California.

3 MR. SHEARS: Right, so by "models," you're not
4 talking about -- because what I was thinking before you
5 made your comment was I'm just wondering to what extent
6 because I expect there's quite a demand and quite a need
7 to support in this area, and I'm just wondering what kind
8 of like needs assessment and forward-looking kind of
9 information is available, can be made available.

10 MR. COOPER: John, actually I was going to
11 comment on that very point. In the plan, there is
12 funding that I believe is set aside for the Labor Market
13 Information Division of EDD to do a needs assessment,
14 which I think is a great idea. I think that there is --
15 the amount of funding that is available in workforce and,
16 frankly, in manufacturing, is by and far not enough, so
17 strategically thinking where to invest makes a lot of
18 sense. My comment was going to be, and is, that the
19 Labor Market Information Division coordinate their
20 efforts with the California Workforce Investment Board,
21 which is planning over the next year to do significant
22 outreach work at regional level with industry and with
23 labor, to kind of look at workforce needs in all
24 different sectors of the economy, but certainly should
25 coordinate with this initiative.

1 MR. PEREZ: Thank you, Peter. And let me just
2 ask from our colleagues that are participating by
3 Webcast, and I refer to our Advisory Committee members,
4 any comments on Manufacturing or Workforce Development
5 and Training from either one of you?

6 Okay, with that, we'll move on to Market and
7 Program Development. Peter, would you like to speak? I
8 see you have your request.

9 MR. COOPER: Oh, I just did have one question,
10 maybe a point of clarification, regarding the regional
11 alternative fuel readiness and planning. Now, is that
12 planning process -- I was just speaking about another
13 planning process -- that planning process is specifically
14 focused on electrical vehicle deployment? Is that
15 correct?

16 MR. PEREZ: Yes. We have nine agreements right
17 now to assist that and possibly we'll be moving into a
18 tenth agreement for a more rural type area, so -- Jim.

19 MR. MCKINNEY: Yeah, and then, to elaborate on
20 what Pat said, we think this is a really needed and
21 successful part of our program, and I think part of the
22 proposal in this year's Investment Plan is to expand that
23 to the other fuel categories to get this level of, you
24 know, regional cooperation and planning, but to cover all
25 the fuel types. And it sounds like you are suggesting

1 that we further link this with the Workforce Training and
2 Development options.

3 MR. COOPER: Yes, that would be my
4 recommendation.

5 MR. PEREZ: Eileen Tutt.

6 MS. TUTT: Eileen with Cal ETC. I just want to
7 say that I think that the issue that I have with the
8 Regional Readiness efforts being expanded to other fuels
9 is that, and not that I'm opposed to that, but that the
10 ground -- you know, the effort on the ground that
11 happened before we came to you asking for this money last
12 year, and you graciously included it, and it was
13 subscribed, I am sure you have heard from the various
14 regions that have gotten this funding, it's been
15 incredibly beneficial, and it's going to accomplish a
16 lot, I mean, I agree with you, this is a great use of
17 this money. But it wasn't like was -- there were already
18 collaboratives, there are already regional
19 collaboratives, there was already a lot of coordination,
20 and so these folks were ready to accept that money and
21 use it in ways that benefitted the deployment of electric
22 vehicles. So I just don't know if that exists for other
23 fuels, and I don't know that you've done the work to
24 figure that out, but what I would say is, where the
25 regional efforts need more money is now to expand upon

1 that regional -- the regional effort's ability to do
2 things like workplace charging. So, for example, in a
3 city, large employers are very important to most
4 communities, and they will do a lot to keep those
5 employers. They want to make them happy and they work
6 with them; the same is true for local utilities, the
7 utilities want -- they work very closely -- that's a
8 customer, those big industrial customers are huge. We
9 need to leverage that and leverage the regional efforts
10 that are already underway and allow those folks to work
11 with the like large employers to put in electric vehicle
12 charging, so this could be expanded not just to other
13 fuels because now you've increased the amount of money,
14 and I'm not even sure that they're ready on the ground to
15 use that money at the regional, local level, I don't see
16 it in my own work with them. But what they are willing
17 to do, and ready to do, is reach out to their big
18 workplace facilities and help -- and same with MUDs, and
19 help them put in charging which, again, really -- it just
20 promotes market growth, and even though we have a lot of
21 vehicles coming out, the level of consumer demand is not
22 all that clear, and we need to do everything we can to
23 get people interested and willing to buy these vehicles,
24 and workplace charging and MUD charging is a big part.
25 So I would say I like the \$3 million, but I'd like to

1 expand the scope, particularly -- maybe just for PEVs
2 since they've already kind of done the other part, but
3 allow them to have some funding to implement programs
4 that would encourage workplace and MUD charging at the
5 local level because they are just so connected to these
6 workplaces.

7 COMMISSIONER PETERMAN: And I think you're --
8 this is Commissioner Peterman -- Eileen, your comments
9 will also be useful generally going forward in thinking
10 about how to do solicitations, and where to prioritize
11 within that, so that's good. Thank you for getting some
12 of that information on the record.

13 MR. PEREZ: Thank you. Now, with that, we're
14 going to move back to the one category that we skipped,
15 which is the Emerging Opportunities. I believe this is
16 also an area where much of the public will have comments
17 on their individual projects. As you recall, at our last
18 Advisory Committee meeting, I laid out the challenge for
19 all parties to come back with methodologies and criteria
20 on how we might allocate this funding, and I don't
21 believe we received any comments on that. We recognize
22 that that is a true challenge. So with that, we would
23 like to get any additional input comments you have no
24 this proposed funding amount for the capturing of Federal
25 solicitation opportunities, as well as other

1 opportunities that may emerge as we move forward in
2 Fiscal Year '12-'13. I will open that for any comments
3 from the Advisory Committee. Let me begin with the
4 people online. Any reaction, comments, recommendations?

5 MR. COLEMAN: This is Will Coleman. I just
6 wanted to actually thank the Commission for instituting
7 this category, in general. I think, you know, speaking
8 from the point of view of the investment side, you know,
9 we see a lot of exceptions on a regular basis, and I
10 understand it's been, you know, somewhat of a challenge
11 to figure out how to deploy the dollars in a way that
12 aligns with some of these different companies'
13 timeframes. So I would be curious, and this probably
14 isn't the forum, but maybe there's a way to follow-up
15 offline and see if there's a way to dig into that and how
16 to better align some of the timing with some of the
17 opportunities. But I do think that, from what we see on
18 a regular basis, there are an enormous number of
19 companies that are in and around this space, that don't
20 cleanly fall into one of the categories, and I think this
21 is an important sort of exception-based category to allow
22 some of those companies to apply for these funds. So,
23 thank you for that.

24 MR. PEREZ: Thank you, Will. Okay, Steve, are
25 you online? Do you have any comments? Okay. Looking

1 around the table, Mr. Carmichael.

2 MR. CARMICHAEL: I'm starting to feel like I'm
3 in trouble, Pat. You're calling Steve and Will by their
4 first name and me "Mr. Carmichael" every time. It's a
5 little uncomfortable.

6 COMMISSIONER PETERMAN: We don't want to
7 confuse you with Tim Olson, the other --

8 MR. CARMICHAEL: Yes.

9 MR. PEREZ: So I don't get mixed up.

10 MR. CARMICHAEL: Okay, all right. Nice cover,
11 Commissioner Peterman, nice cover.

12 MR. PEREZ: Thank you, Commissioner, for that.

13 MR. CARMICHAEL: So on Emerging Opportunities,
14 I want to echo the comments of Will Coleman that I think
15 this is an important category for the unexpected and the,
16 you know, maybe the longer shot opportunity that is
17 presented to you, to this agency. And I think at this
18 level of funding, it's very wise to have this set aside.
19 That said, you get to near the end of this cycle and you
20 don't have \$3.5 million or more in really good ideas that
21 came forward for this, I have a few ideas on how you can
22 spend this money.

23 COMMISSIONER PETERMAN: Fair enough.

24 MR. PEREZ: Thank you. John Shears.

25 MR. SHEARS: I was going to try and put Tom

1 Fulks on the spot since he was the one that pushed so
2 hard for this, this category originally, but he's not
3 here anymore, so he gets off the hook. I was just
4 thinking, you know, given the challenges of trying to
5 actually figure out a practical framework for screening
6 and navigating this area, it seems like it's something
7 that's, you know -- unfortunately, the timeline may not
8 really work for this round, but it seems like something
9 that would be appropriate for an informal workshop, get a
10 bunch of people together and really like just go over it
11 and develop it that way. I think just offering
12 suggestions is a start, but I think it would need to be
13 developed and explored a lot more thoroughly.

14 COMMISSIONER PETERMAN: And I -- this is
15 Commissioner Peterman -- also, I think there could be
16 some informal workshop, especially thinking about the
17 '13-'14 Plan, because I think there are a number of
18 projects that have come to the attention of the
19 Commission from various members, as well as from some of
20 our Federal partners, that fit well into this category
21 and there will be some lessons learned from doing those
22 solicitations. And kind of starting with having done
23 some, maybe that will help everyone think about, is that
24 the right way to do it? Is there a better way, you know,
25 giving people a straw man to work from vs. just keeping

1 it broadly open. And so, if members are interested in
2 that, I'd recommend that as well for some time later in
3 the summer or the year after we've had some experience
4 with a couple of these.

5 MR. PEREZ: Great. Well, thank you all for
6 your input here. I think at this point in time, we would
7 like to open it to public comments. We encourage all
8 parties to come forward. Keep your comments brief. If
9 you've submitted materials to the docket, we remind you
10 to just simply summarize what's in those documents.
11 We'll give each party up to three minutes, and I have two
12 other people that may have time constraints, we'll take
13 them first, and then we'll just walk through each of the
14 presenters, both online and those here.

15 COMMISSIONER PETERMAN: And if you'd like to
16 make a public comment and you're in the room, please fill
17 out a blue card and hand it to someone. Thanks.

18 MR. PEREZ: Thank you, Commissioner. So let me
19 begin with Andreas from BMW.

20 MR. KLUGESDAD: So I have provided a
21 Powerpoint, I don't know if anyone is able to get that
22 on? And I hope it is not deducted from my three minutes,
23 right?

24 COMMISSIONER PETERMAN: Your three minutes will
25 start in a second, but you have to include it -- your

1 Powerpoint is included in that.

2 MR. KLUGESDAD: Sure. Okay, so my name is
3 Andreas Klugesdad, I was President of Governmental
4 Affairs with BMW Group. And I'm here today to give you
5 an update on the combo charging system, we briefly heard
6 about that in the context of Level 3 charging and
7 potential funding opportunities. If you can go on to the
8 next slide, please?

9 COMMISSIONER PETERMAN: Andreas, excuse me one
10 second, this is not your three minutes. Considering this
11 is a topic that was of heavy discussion earlier in the
12 day, you can take a couple more minutes than three to
13 make sure that everyone is up to speed on what's going on
14 in this area. Thanks.

15 MR. KLUGESDAD: This is very much appreciated,
16 thank you. So I will slow down in my speech? So really,
17 just to give you a brief idea of what is combo, many of
18 you may know that it's basically a level three charging
19 system that combines level 1, 2 and 3 in one plug, on
20 contrast to what is out on the market right now, where we
21 have basically two -- not two plugs, but two ports in the
22 car that actually allow for the charging of the car in
23 level 1, 2, and 3, we have with the combo system one plug
24 in the car. Next chart, please. So that's what it looks
25 like. Basically, the largest asset of combo for us is

1 OEMs and for the customers, really, is an easier
2 handling, it's lighter in the car, less cost in the car,
3 again, customer benefit, as well, not only ours, and it
4 also allows through the communication protocols that we
5 are using for larger and more beneficial Smart Grid
6 applications in the future. So, next chart.

7 We can probably even skip that one, just to
8 remain in the three minutes if at any way possible. So
9 just to give you an idea of where we are with BMW now, we
10 started working on combo in 2010, we have already out
11 there with the BMW ActiveE a couple of demonstrators. By
12 the way, the BMW ActiveE is available as a second-
13 generation BMW electric car in California right now, and
14 some of these several hundred cars are combo capable.

15 Now, when it comes to certification, we are
16 working together with SAE to get the certification
17 finished by probably somewhere this year, and there's a
18 good chance that we are probably even a bit faster than
19 that. And we'll see certified combo chargers available
20 by the end of this year. Next year, though, we'll see
21 also, then, products coming into the market -- please
22 show us the next slide -- these are only the ones that
23 are already officially announced and we are positive
24 there will be others coming into the market, as well,
25 very soon, so the Chevy Spark is going to become capable,

1 the BMW i3 is a combo car, and also the Volkswagen Up,
2 again, more to come. Next chart, please.

3 So just to give you an idea who is supporting
4 the combo standard for DC fast charging, we have the big
5 three, so to say, Chrysler for GM, we have basically all
6 German OEMs, which is Audi, Daimler, Volkswagen, Porsche,
7 and BMW. And we have several other smaller manufacturers
8 and also some of the Japanese manufacturers who are at
9 least considering this standard. On the supplier side,
10 you see for yourself plenty of suppliers who are
11 currently working on hardware, and so on. So, next
12 chart, please.

13 You will have a chance to see all that at E
14 West 26 early in May where we have a demonstration at the
15 show floor, actually, to inform the public about where we
16 are with combo. Now, coming to the Investment Plan, I
17 think it's decisive and I'm speaking here not only for
18 BMW, but really for all involved parties in the combo
19 standard, that we will not only consider, as it is
20 mentioned now in the draft Investment Plan, either of the
21 standards for roll-out with level 3 charging in the
22 future, but I think, and we think, it's decisive to have,
23 from now on, basically for every hardware, for every
24 charger, a level 3 that we install, the availability of
25 SAE or combo standard, as it is called -- SAE and combo

1 is very much the same -- in the market, on the road,
2 really, in order to provide a level playing field for all
3 users of electric vehicles, and in order to have a non-
4 discriminatory approach to level 3 charging. So that is
5 basically what I want to communicate here. Combo is out
6 there, it's going to be certified this year, products are
7 out there when it comes to chargers by the end of the
8 year when it comes to cars, next year, and it's time to
9 get that implemented and on the road. Oh, one comment,
10 going away from that, before I forget, I would also like
11 to stress what Eileen and others have said in terms of AB
12 118 vehicle program, light-duty vehicle program, I just
13 want to voice the support of BMW that there is going to
14 be transfer of money really towards ARB in that respect
15 because we all think it's hugely important to make sure
16 that a certain level of funding and a certain level of
17 incentives is provided for EV drivers, also, in the
18 future. That's going away from that.

19 MR. SHEARS: Yeah, so just -- Andreas, thanks a
20 lot because I think this was a timely presentation. I
21 just want to raise a couple of clarifying points. The
22 current PON that's out asks that, you know, fast chargers
23 that are successful, and projects that have fast
24 chargers, that the fast chargers be upgradeable to the
25 combo coupler standard. I think the challenge for the

1 CEC, especially in developing the next PON, is actually,
2 you know, what is upgradeable in theory vs. what in
3 reality and practicality is an upgradeable charger unit.
4 So, again, I encourage, you know, we have talked about
5 this, and encouraged industry if they could provide sort
6 of like the criteria in terms of the communications
7 boards and all the other parallel hardware that would
8 have to go in with, you know, on the SAE side vs. the
9 CHAdEMO side of the charge unit, I think that would
10 really help the staff out. And then, also, in terms of
11 managing this transition, there are indeed a couple of
12 manufacturers, at least, right now who are designing
13 combo -- or charge units that have both plugs on them,
14 just also wanted to let people know that the
15 manufacturers are also looking at this transition issue.

16 MR. KLUGESDAD: If I just can answer your
17 request. On the question of hardware upgradeability, so
18 to say, on the one hand we think that, as hardware is
19 just around the corner, really, it probably makes sense
20 to, at least from now on, consider not units that are
21 upgradeable, but rather that are actually providing SAE,
22 or combo standard, very much from the beginning. We are
23 more than happy, actually, to provide CEC staff with
24 specs with some technical details, also to make sure that
25 the investments go into the right direction in that

1 respect, and for you to evaluate these specs.

2 On the question of hardware when it comes to
3 chargers, you mentioned rightly that there's actually a
4 group of companies actually working on that, it's not
5 only a single one, or what have you, but rather a number
6 of providers in that field, as you probably briefly saw
7 in the Powerpoint, in the middle column they were
8 mentioned there.

9 MR. SHEARS: And amongst the others. So maybe
10 just to clarify because, I don't know, the current PON,
11 is the deadline for submissions -- it's closed, so -- and
12 in reviewing, would it still be helpful if industry
13 provided staff with screening criteria? Would that still
14 be timely and useful?

15 MR. KLUGESDAD: Well, we would certainly do
16 that if you indicate that it's of value for you.

17 MR. PEREZ: Yeah, we'll certainly consider any
18 input you can provide to see if, indeed, we need to make
19 adjustments down the road, so we would welcome any
20 information you can provide. Please provide it quickly,
21 though.

22 MR. KLUGESDAD: We will do our very best.

23 MR. PEREZ: In the next week.

24 MR. KLUGESDAD: Okay.

25 MR. PEREZ: Appreciate it.

1 COMMISSIONER PETERMAN: Thank you, Andreas.

2 MR. KLUGESDAD: Thank you.

3 MS. TUTT: Eileen at Cal ETC, real quick
4 question. Are you -- because the way the PON and the CEC
5 plan right now is written, it doesn't sort of pick one
6 over the other, it says that you could do either
7 basically and get funded. And if I am understanding, are
8 you suggesting that it's time for the CEC to pick combo
9 as the path forward? Because the language in the report
10 right now and in the PON right now allows for either one,
11 and so, if I'm understanding -- and maybe I'm just not
12 understanding -- but it almost sounds like what John is
13 suggesting is that you provide clarification so that it
14 doesn't do that anymore, and I'm not sure -- I don't
15 think, anyway, that that's what you're saying. And the
16 other piece that I just want to hear from you on,
17 particularly, is in the thing that I understood about the
18 NRG settlement, that I do like, although it's not public,
19 but the part that is public that has been discussed, is
20 that the fast chargers that they're putting in can
21 accommodate both types. And so my sense is that that's
22 kind of where we are right now. We haven't picked one.
23 Does that make sense?

24 MR. KLUGESDAD: Well, what I'm not asking or
25 requesting is that the Energy Commission or any other

1 entity is actually picking a winner in that game, that's
2 not the idea. The idea is, and maybe I got that wrong,
3 in the Investment Plan it says either of the technologies
4 will be available, so that could imply that it is an only
5 combo, or an only CHAdeMO charger, and my point is that
6 every infrastructure that is out there should be able to
7 serve combo, that could potentially mean in the
8 interpretation, then, that we will from now on only see
9 these dual chargers that can do both, right? Again,
10 hardware just about to come. Or, you know, if it's an
11 SAE combo only charger, obviously that would be good for
12 us, but that's not the request, really, is that we are
13 only doing from now on infrastructure that only covers
14 SAE combo, right? But it has to also cover SAE combo,
15 that's the point. On the Energy agreement/settlement,
16 I'm with you, I saw that with pleasure, as well. My
17 interpretation is, as well, that it is going exactly that
18 route, right? But I'm also sure that we need to
19 penetrate that message a bit further also in that
20 respect.

21 MR. PEREZ: Okay, thank you. Next speaker,
22 Jamie Hall.

23 MR. HALL: Good afternoon, everyone. Thank
24 you. I want to thank the Commissioners, the staff, and
25 all the volunteer Advisory Committee here for all the

1 work that's gone into this so far. I'm Jamie Hall, I'm
2 Policy Director for CALSTART, but I'm actually here today
3 on behalf of a larger group to highlight the need for
4 more investment in medium- and heavy-duty technology
5 advancement. I did hand out to all of you an
6 enthusiastic letter, described by Tim Carmichael, with 12
7 organizations and that list is growing, we've added one
8 more California manufacturer just while I've been sitting
9 here, and I just want to summarize quickly some of the
10 key points of this letter and request.

11 First, you know, we definitely recognize the
12 resource constraints here, how late we are in the
13 process, and that there are a lot of competing
14 priorities. Therefore, we really appreciate all the
15 investments in this sector to date, but this group thinks
16 a lot more is needed both this year and in future years.
17 Trucks and buses, especially for goods movement, are a
18 big and growing piece of California's oil addiction,
19 greenhouse gas, and air quality problems, therefore we
20 really need advance technologies in this sector, but
21 where we are right now, we really have a long way to go,
22 and I think there are two real reasons for this. First,
23 California -- I've often heard Tim Carmichael say this --
24 we sort of lack a plan and vision for the medium- and
25 heavy-duty sector, we've got a lot going on in the light-

1 duty side, we have the ZEV Program. CARB is now starting
2 to do a visioning process, I know, that is going to
3 address this, but we're sort of several steps behind the
4 light-duty sector, and undeniably we have a long way to
5 go.

6 Second, truck and bus manufacturers lack the
7 capacity to do the large scale research, development and
8 demonstration that you see out of a lot of the car
9 companies because the production volumes are just not
10 high enough to justify this and they can't spread the
11 cost over, you know, millions of vehicle sales. So
12 public money really plays a very important role in moving
13 things forward here, and we think there's a need for
14 significant and sustained funding for the next three
15 years or so. You had to go big in the letter, even this
16 late in the process, and ask for an enthusiastic \$20
17 million, we recognize that, you know, where we are today,
18 that may be tough. Certainly, at a minimum we would
19 support -- I think there has been a lot of support here
20 today from Eileen and others for bumping it up somewhat,
21 maybe in the neighborhood of \$10, and then you can sort
22 of consider this letter an early submission for the
23 docket for next year and ongoing funding.

24 COMMISSIONER PETERMAN: You still have to file
25 it again next year.

1 MR. HALL: I will. But I just want to get this
2 out there, that this is not just a request for now, and I
3 know we're late now and if we were to get \$10 this year,
4 and sort of work on stepping it up later, that would make
5 sense. To quickly respond to the comments from staff
6 about needing to wait and see where these investments go,
7 it's sort of going to take a long time and when you do a
8 demonstration project, it takes a while, you've got to
9 get the data back, you've got to look at the market, and
10 if we were to do that sort of serial process, I think we
11 would be moving forward more slowly than people in, say,
12 the South Coast and San Joaquin Valley think we really
13 need to in this sector. So, with that, there are more
14 details in the letter and we will submit this officially
15 when we get a few more companies on board.

16 MR. PEREZ: Thank you, Jamie.

17 MR. HALL: Thank you.

18 MR. PEREZ: Michael Block.

19 MR. BLOCK: Thanks. My name is Michael Block.
20 I'm here representing the Electrification Leadership
21 Council. And I'll preface my comments by saying that I
22 may be on familiar ground here, you may know a bit more
23 about this, and if that's the case, I don't want to
24 repeat myself. Feel free to kind of ask me to go on to
25 Part 2, which would be more talking a little bit about

1 just what's happening, latest developments. But let me
2 at least just frame what the Electrification Leadership
3 Council is. We're a coalition of stakeholder companies
4 in the electric vehicle industry, and I think many of you
5 are aware of that, and what we've done is we've pulled
6 our resources to engage with Government and other
7 coalitions. And the idea is to do a eventually broad
8 scale commercial electric vehicle deployment and make
9 that a reality in California. And we've been working on
10 this since August of 2010.

11 We have a core group of members, some of them
12 include companies you're familiar with, Coda, Ecotality,
13 FedEx, GE Capital, 8123 Systems, UPS, Hertz, and
14 Navistar, and some other ones. And the idea eventually
15 is to expand this core to a much much larger base, and
16 there are other companies that are interested in doing
17 that. As I mentioned, the goal is to design and execute
18 a large scale commercial electric vehicle demonstration
19 project in California. And let me preface that comment
20 by saying this is not at the exclusion of the consumer
21 market or any other, we think that there's a place for
22 all these different types of technologies, but we think
23 that the commercial vehicle market is a unique one, and
24 one that requires something a bit special, and that's why
25 this coalition was really formed. We've targeted two

1 areas, we've talked a lot of different areas, we've
2 targeted two areas, no final decision yet, but
3 potentially in the Bay Area and the South Coast. And the
4 idea is 1,500 vehicles over two years, which is pretty
5 ambitious, but we think we can do it.

6 The problem, I think -- we think -- in terms of
7 the commercial vehicle market with other attempts to do
8 this is that there's no one provider that can provide the
9 entire package. You've got electric vehicle
10 manufacturers, you've got people that are making
11 infrastructure, etc., etc., and so the thought was that,
12 if you look at it from a perspective of a fleet buyer, a
13 fleet buyers wants, you know, give me everything, don't
14 just give me the baseball uniform, give me the bat and
15 the ball and the shoes, and everything else, so I can
16 build a team. And that's really the whole kind of basic
17 purpose behind this.

18 And so there's kind of a sea change, if you
19 will, or a challenge between a person buying a Nissan
20 *Leaf*, one car, vs. a fleet buying 50 electric vehicle
21 trucks. And so this group is designed to try and meet
22 that challenge. And those challenges include a whole lot
23 of things, obviously, there's cost, there's some public
24 policy issues, there's obviously the cost of the
25 equipment, in-use operator experience, this is a

1 commercial market, trucks have to keep on running, so
2 vocational training is going to be key, you know, user
3 acceptance, and I think one of the key ones also is the
4 inter-operation between the electric vehicle and the
5 Grid, itself, and we've kind of touched upon that a
6 little bit.

7 We think that the benefits are rather obvious,
8 obviously cleaner air, less energy dependence, and so on
9 and so forth. But I think that another benefit is that
10 we can get feedback from this. Commercial operators are
11 not bashful, and so they'll come back with lessons
12 learned in, I think, a very expeditious way, so that the
13 next round and the next round and the next round can be
14 even more successful. This clearly aligns, I think, with
15 the missions of California, and the California Energy
16 Commission, in terms of reduced energy dependence and
17 workforce development, and a whole bunch of things along
18 those lines.

19 By way of an update, we've talked with --
20 obviously, I think we've talked with you before, we have
21 a proposal in to you, we've talked to our friends over at
22 ARB, we have a proposal in to them and we'll be talking
23 to them even further. We've talked with a number of the
24 Air Quality and Management Districts and, as I say, we
25 seem to be focused on South Coast and potentially the Bay

1 Area, as well. And, really, I think just to summarize,
2 this is a real sea change in terms of how we go about
3 getting electric vehicles into this market, but we think
4 it's a real good one. And I think maybe the takeaway
5 from this is that we cannot and don't want to do it
6 without CEC and ARB and the other agencies. Thank you.

7 MR. PEREZ: Thank you, Michael. John Clements.

8 MR. CLEMENTS: Good afternoon, Commissioners and
9 Advisory Panel. I'm John Clements, Director of
10 Transportation for Kings Canyon Unified, also
11 representing the Central Valley Transportation Center
12 that we partner with the City of Reedley and soon,
13 hopefully, Reedley College. I just wanted to comment
14 that we are a recipient of Robert's ETP funds, we just
15 received a grant for about \$43,200 in which we are going
16 to work to train our technicians and train some of the
17 next generation, that are going to take those
18 technicians' places that are soon to retire, to maintain
19 our five hybrids that are arriving now, and are electric
20 -- first production electric school bus.

21 With respect to the HVIP money, HVIP is being
22 utilized to fund this particular bus to the tune of about
23 \$40,000, and hopefully will fund some in the future that
24 we will be receiving CMAC monies for, that will use as
25 our portion of our match. So I'd just like to say that

1 we're in support of the Center for Alt Fuels and Advance
2 Vehicles, we believe that will help us drive the stake in
3 the ground for the first portion of our Central Valley
4 Transportation Center, glad to see that that's firmed up.
5 I also wish that Peter Ward was here because I wanted to
6 publicly apologize to him, I was hammering on him a
7 little bit before he retired with respect to the buy-down
8 for CNG funds. We arrived today and our first light-duty
9 CNG four-transit connect, and we didn't get any buy-down
10 money for that, but having seen the list recently of the
11 manufacturers that did receive money, I'm excited that
12 Navistar is on that list and we might have another vendor
13 in the market that will be providing CNG school buses to
14 us in the near future. So keep that going, and also we
15 just recently missed the boat on the solicitation for CNG
16 infrastructure for school districts, I'm sad that we
17 couldn't have helped with that amount of funds earlier
18 that was mentioned, that you didn't have enough
19 solicitations for, hope that that's available in the next
20 round of funding because I know that our school district,
21 as well as several municipalities in the Fresno Central
22 Valley Region could certainly use some of those funds to
23 upgrade our existing older CNG stations. So we, for some
24 reason that went across our radar and we weren't even
25 aware of that, and we would welcome the opportunity to be

1 able to go for those funds in the future. Thank you.

2 COMMISSIONER PETERMAN: Thank you for your
3 comments, and I think also you were a recipient in our
4 first round of funding, \$300,000, and so the AB 118 plan
5 has been supportive of your work, and continues to be
6 supportive of that work.

7 MR. CLEMENTS: Thank you very much. There's my
8 ETP funding program right there.

9 COMMISSIONER PETERMAN: But this is something
10 else I'm talking about, I'm talking about the funding
11 from this program that you've already received -- it was
12 one of the ones you didn't mention, so I was just going
13 to point that out.

14 MR. CLEMENTS: Oh, yeah, absolutely, that's
15 correct. We are in the previous funds under the name of
16 the City of Reedley going towards our project in the
17 amount of \$480,000, that is for electrical charging
18 infrastructure and also for some other CNG funding.
19 Thank you very much.

20 COMMISSIONER PETERMAN: Terrific. Thank you.

21 MR. PEREZ: Okay, next speaker, Matt Miyasato,
22 South Coast Air Quality Management District.

23 MR. MIYASATO: Okay. Thank you, Pat. Good
24 morning, Chairman Weisenmiller, Commissioner Peterman,
25 and I also want to acknowledge the Commissioner Emeritus,

1 is that the right title for Commissioner Boyd out in the
2 audience? It's good to be here. For the record, Matt
3 Miyasato, Assistant Deputy for Technology Advancement at
4 the South Coast AQMD. I wanted to frame my comments in
5 terms of the air quality challenge that we face in the
6 South Coast Basin. I'm sure you're familiar with the
7 Greater L.A. Region. We suffer from the worst air
8 quality in the nation and, in order to get where we need
9 to be for the Federal Attainment Standards for Ozone,
10 we've been looking at reducing NO_x emissions that is all
11 combustion sources by 80 to 90 percent. And so I'm glad
12 that Bonnie mentioned the visioning process that we're
13 undertaking with Erik and his group at the Air Resources
14 Board, also involving San Joaquin Valley. And we've been
15 aggressively focused and actively focused on getting to
16 zero emission technologies in many different sectors.
17 And so there are two main comments I'd like to make, one
18 is we see the Energy Commission maintaining and even
19 expanding your leadership role in two particular areas
20 where you can essentially effect the transformation of
21 the transportation sector, in particular, hydrogen
22 fueling infrastructure, so we can see the evolution from
23 zero emissions to fuel cell vehicles. So we really urge
24 you to, if you can exercise some head room and backfill,
25 is look at hydrogen infrastructure.

1 But more importantly, I want to also emphasize
2 and agree with the comments from CALSTART and also Tim
3 Carmichael in your Medium- and Heavy-Duty Advanced
4 Vehicle Technology Demonstration category. We believe
5 that's underfunded and I think that was shown by the
6 over-subscription in your recent solicitation awards and
7 your NOPA. I do want to make a clarifying comment that
8 the award of the \$16.9 million was a great step by the
9 Energy Commission, we applaud you for making those
10 awards, we were participants on one of the awardees,
11 CALSTART. But I also want to simply make the observation
12 that the solicitation was really geared towards goods
13 movement, and yet there was, I think, one project that
14 was really goods movement related for on-road
15 technologies. And so I would urge you to reconsider
16 those and, if you are going to focus on goods movement in
17 this technology sector, is to really apply some rigid
18 criteria in terms of how do you actually realize those
19 benefits in the goods movement area.

20 The second comment is what we've been proposing
21 for the past three years, I know it's very difficult to
22 try to work together to do block grants with the Air
23 Districts, or having carve-outs in terms of how do we
24 work together to leverage each other's fundings. We're
25 also a funding agency and we'd love to work with the

1 Energy Commission, so what I would suggest is, if we
2 can't increase perhaps the Medium- and Heavy-Duty
3 Advanced Vehicle Technology Demonstration category, where
4 you might want to increase your funding is in the
5 Emerging Opportunities sector. That gives you the
6 flexibility to take advantage of programs that are
7 underway.

8 I would also suggest that it's not solely
9 Federally co-funded projects, but projects that are
10 funded by the Air Districts, the South Coast AQMD, the
11 Ports, for example, working very closely with the Port of
12 L.A., Long Beach, on their Technology Advancement Plan,
13 and we're also going after some near term opportunities
14 with the Department of Energy for zero emission cargo
15 freight movement, and so we'd love the opportunity to
16 work with the Energy Commission on that solicitation, or
17 that proposal.

18 So, in closing, I'd just urge you to continue
19 working with us. If there's an opportunity to work
20 together more closely, we would welcome that. We offer
21 our services and really maintain your leadership in those
22 three categories, Hydrogen Infrastructure, and Medium-
23 and Heavy-Duty Vehicle Technology Demonstrations, but
24 more importantly goods movement technologies, zero
25 emission goods movement technologies, and also the

1 Emerging Opportunities category.

2 COMMISSIONER PETERMAN: Matt, thank you for
3 your comments. I've appreciated the opportunities to
4 have meeting with you and South Coast, and the more we
5 can further collaborate, especially on our funding, I'm
6 supportive of that, and I think you've made some good
7 suggestions for some things for the group to think about.
8 Thank you.

9 MR. MIYASATO: Thank you.

10 MR. PEREZ: Thank you, Matt. I think we're
11 going to return back to Atul Deshmane. I believe you're
12 available online? Atul, are you there?

13 MR. DESHMANE: Can you hear me now?

14 MR. PEREZ: Yes, we can. Atul, please
15 introduce yourself and proceed.

16 MR. DESHMANE: Thank you. My name is Atul
17 Deshmane and I am with Whole Energy Fuels. I am
18 President of the company. And I appreciate the
19 opportunity to quickly present an industry update on
20 California Energy Commission activities as they relate to
21 the industry, particularly the biodiesel industry. And
22 my main thesis is to just mention that, although the
23 programs have been really helpful to date, from the CEC
24 one aspect that needs to be addressed for the future is
25 the importance of co-products, to move us towards a

1 biorefining vision.

2 COMMISSIONER PETERMAN: Are you still on the
3 line? Well, we can't hear you --

4 MR. DESHMANE: Hello?

5 COMMISSIONER PETERMAN: Oh, we lost you for a
6 second. So we heard your introduction. And so now we're
7 on the slide that says "Company Background," if you want
8 to start there.

9 MR. DESHMANE: Thank you. So the company has
10 multiple regional facilities, several in the northwest,
11 and also in California. We focus on distributing and
12 marketing products made by local producers, there are
13 several in California that we work with in Northern and
14 Southern California. And the other focus of our company
15 is to refine the co-products that are made at those
16 facilities. And we have been very interested in the
17 California Energy Commission's solicitations in regards
18 to the co-products. We serve our industry by matching
19 different feedstocks to producers. We supply feedstocks
20 to those producers in California and producers to the
21 market, of course, again, through the terminal
22 facilities, and then lastly sometimes helping them find
23 new technologies that might help. Next slide.

24 And some pictures of our facilities. Next
25 slide. And a listing of those facilities. Again, a

1 couple facilities in California, and also in the
2 northwest. Next slide. So one of the areas, one of the
3 technologies that we've talked to several producers
4 about, that will both provide demo benefit and, of
5 course, benefits for our company, are in the processing
6 of glycerin. There's a specific focus that our company
7 has on glycerin, but that does not mean that there's not
8 co-products from other biofuel producers in the state,
9 and the importance on helping those biofuel producers not
10 just in the biodiesel space, but all biofuel producers
11 get support from the California Energy Commission to
12 develop and market their co-products.

13 I will just focus quickly on one aspect that we
14 think has a lot of potential, and that is in just simply
15 distilling glycerin. It is a product that today the
16 producers are not getting a sufficient value on it, and
17 we want to help them get greater value, and of course,
18 help ourselves by doing that. And currently the market
19 values on glycerin represent maybe less than a percent of
20 the total revenue that a biodiesel company can make, and
21 we want to bring that up into the couple percent range.
22 And producing a commodity product, that is very important
23 because that additional percentage go directly to your
24 bottom line and you probably know that biodiesel industry
25 has on and off been struggling. So that's why we see the

1 co-products as being so important. Next slide, please.

2 One specific area where glycerin is being used
3 is in a process called Glycerolysis, one which we are
4 piloting up here in the northwest, which actually allows
5 you to recover very very high SSA raw material. There
6 are other beneficial uses of glycerin. Today, we market
7 the glycerin into about half a dozen different markets
8 that in all cases are a non-toxic improvement upon an
9 industrial chemical that's currently serving those
10 markets, which is basically typically a more toxic or
11 more corrosive material. And we've also found
12 applications related to that in the purification of raw
13 materials. And, again, it's the same point, that when
14 you crush vegetable oil, there's also some co-products,
15 and one of those are gums, and typically the gums don't
16 secure the kind of value that they should because they're
17 very high in nutrients, and so that's another co-product,
18 not in biodiesel production, but in the crushing of oil
19 that we'd like to see emphasized.

20 So in synopsis, we'd like to see co-products
21 and biorefining getting an emphasis in future
22 solicitations.

23 COMMISSIONER PETERMAN: Thank you. Thank you
24 for the presentation and your comments.

25 MR. PEREZ: Russell Teal.

1 MR. TEALL: Good afternoon. My name is Russell
2 Teall. I'm the President of Biodico, formerly known as
3 Biodiesel Industries, but many of you probably know us as
4 that. We went through a name change last year because
5 our work with the Navy has evolved to the point where
6 we're looking at not just biodiesel, but renewable jet
7 fuel, as well. And so, when we look at the entire
8 biomass portion, there's a lipid portion which can be
9 converted into biodiesel. There's an oil extraction
10 solids portion which can be gasified and turned in
11 through a gas to liquid process, into a renewable jet
12 fuel.

13 My comments today are somewhat limited. The
14 benefits report, I very much like the portions that are
15 focusing on the carbon intensity values for the Low
16 Carbon Fuel Standard. I served on the Low Carbon Fuel
17 Standard Advisory Committee for doing the updates last
18 year, and one of the questions which came up was how much
19 fuel do we need, you know, if we're going to meet this 10
20 percent reduction to regulated parties, you know, how
21 many gallons do we need? And you know, the answer wasn't
22 apparent, so we worked with staff over there and there's
23 a spreadsheet that's available on the CARB website to
24 look at how the carbon intensity, the fuel, affects the
25 number of gallons it's going to take for compliance. And

1 if you use what I call an ultra low carbon intensity
2 fuel, which is arbitrarily -- I set it at 20 grams of CO₂
3 equivalents per megajoule or less -- by 2020, 540 million
4 gallons are needed just for the diesel replacement. So,
5 you know, that's a very large task in a very short period
6 of time, and so I really think that the focus, in large
7 part -- I know this is a multifaceted program -- but the
8 lower we can drive the carbon intensity of the fuels that
9 are being supported by this program, the more likely we
10 are to achieve those results. Probably one of the
11 largest factors affecting the carbon intensity is derived
12 from the feedstocks, and I very much agree with Simon's
13 approach, that the more sustainable the feedstocks, you
14 know, it's better for the environment, it's better for
15 the carbon intensity, and so our focus as an industry in
16 collaboration with government, has to be where are these
17 feedstocks going to come from, what are they, what is
18 appropriate for California? The work that Dr. Kaffka is
19 doing is tremendous, the U.C. system is doing great work
20 in this regard, and I would urge that more support be
21 directed towards the feedstock question, and that's
22 something that makes all boats float, you know, whether
23 it's renewable diesel, biodiesel, biogas derived fuels,
24 all those fuels need a feedstock and that's very
25 essential to meeting the 2020 goals.

1 Probably the next biggest obstacle that I see
2 is permitting. The CalRecycle has done a great job in
3 terms of sponsoring a programmatic environmental
4 assessment for biogas facilities, which makes it much
5 easier to get a facility permitted. It doesn't guarantee
6 it, it's not a substitute for the localization of that,
7 but it provides a framework so that local regulators can
8 look at it and say, "Okay, here's the guidance document,
9 this is what are the impacts that we're expecting." And
10 so, for the expansion and development of new projects,
11 doing some sort of a programmatic assessment to the
12 extent that it fits into one of the existing budget
13 categories and can be part of a solicitation, I think
14 that would do a lot for moving the industry forward.

15 Finally is the question of infrastructure. And
16 I was surprised, as well, when there was \$3.1 million for
17 biodiesel infrastructure and only \$1.1 million in
18 projects coming through. And in looking at that, I think
19 there's probably two or three factors, you know, that
20 influence that. One is our industry went through a
21 severe downturn, there was a lot of regulatory
22 uncertainty at the Federal level as to what incentives
23 were going to be available, but that's been resolved at
24 this point, and the Low Carbon Fuel Standard is kicking
25 in. As you know, it ramps up like a ski jump, you know,

1 a quarter of a percent, last year a half a percent, one
2 percent, one and a half, and so, as this ski jump
3 happens, we need to be ready to supply these fuels into
4 the market. Biodiesel, just as an example, doesn't need
5 new vehicles, doesn't need new fuel stations. You know,
6 what it needs is space at the terminals, at the racks,
7 where the fuel can be blended to whatever percentage is
8 going to be required. At a 540 million gallon compliance
9 level, that's a 12 percent blend of biodiesel, so that's
10 well within what the OEMs are setting as a B20 limit for
11 a lot of the warranties.

12 So what I would ask is that there be a
13 reconsideration of the \$2 million that is leftover, to
14 reallocate it for infrastructure so that we can get these
15 terminals involved in the process, putting these
16 facilities, and as of April 14th of this year, the IRS
17 was saying that there's 85 terminals registered in
18 California for the distribution of fuel, so looking at
19 those strategically, you know, we're the best ones for
20 getting the greatest throughput of fuel into this market,
21 I think is important, and that with a proper outreach
22 program and the programmatic environmental assessment,
23 you know, to help with the permitting process, you know,
24 that infrastructure to be developed.

25 MR. PEREZ: Thank you very much. Matt Horton.

1 MR. HORTON: Good afternoon, Commissioners,
2 staff, and Advisory Committee. I'm Matt Horton, CEO of
3 Propel Fuels, glad to be here with you again today. Most
4 of you will know that Propel is a leading retailer of
5 alternative fuels here in the State of California, and
6 you'll know us most likely for our sales of biodiesel and
7 E85 Ethanol, which are the two products that we're
8 offering today in California. But I also want to make
9 clear that we are looking at all of these fuel types, EV
10 Charging, hydrogen, and others, and are looking forward
11 to putting those technologies into the market as the
12 vehicle base continues to grow for those products.

13 But today I'm really here to talk about Ethanol
14 for a few minutes and why, of all the fuel types that we
15 see, we remain confident that E85 is one of the very best
16 options for California today. I know there was a lot of
17 concern in 2011 about the future for the Ethanol retail
18 market with the expiration of Vtech, believe me, we were
19 pretty concerned, as well. Our matching capital was sort
20 of put on hold and our program slowed down a bit waiting
21 to see how things played out. And I'm very pleased to
22 say that the loss of the Ethanol tax credit was actually
23 one of the best things that's ever happened to Ethanol at
24 retail. This quarter has been, by far, one of our best
25 quarters for fuel sales. Pricing in the market is quite

1 good today.

2 I wanted to talk about a couple of things, a
3 couple of features about the market. As we're thinking
4 about the categories of these alternative fuel
5 infrastructure investments, again, we're very pleased to
6 see there is a good investment amount for this category,
7 but do have some issues with the allocation levels. One,
8 I do want to talk about vehicles. The Flex Fuel Vehicle
9 market is by far the largest and fastest growing vehicle
10 market, Alternative Fuel Vehicle Market, in the State of
11 California and in the country. Our estimates show that
12 we are going to be at about a million flex fuel vehicles
13 in California pretty soon. We've been dealing off of
14 some outdated data in that regard for a number of years,
15 but very fast growth in the vehicle base.

16 The number of models available doubled last
17 year up to 72, so lots of models available, and one of
18 the most important things that I do want to remind
19 people, these are affordable vehicles. Unlike the
20 electric vehicles and hydrogen vehicles that are going to
21 be purchased by the wealthiest among us, these are
22 vehicles that have no extra cost, the fuel is very low in
23 cost, and this is a great product for all Californians,
24 regardless of their income levels. And we see that at
25 our stations; we pull a very broad demographic.

1 As I mentioned before, Ethanol pricing is more
2 competitive than ever and we're passing that on to our
3 customers, so our customers are getting great savings at
4 the pump. Regarding performance, from just 20 stations
5 that we've opened in California that sell E85, we have
6 over 10,000 customers today. So for every one of these
7 stations we open, that's about 500 people who have made a
8 switch off of gasoline and onto an alternative fuel. And
9 just to put it into context, you know, that's more than
10 all of the hydrogen vehicles we have in the state, are
11 served by just one of Propel's stations, so very strong
12 customer uptick. And sales are again up almost 60
13 percent in volume from December, so it's been a great
14 quarter for us.

15 Again, I want to reiterate, you know, we are as
16 a company rolling out new Clean Mobility Centers, what
17 we're calling them, that are going to integrate a number
18 of fuels. We will be opening our first one of these in
19 Fullerton in just a couple of weeks, very excited about
20 that. But more than anything, I just want to send the
21 message that Ethanol retailing, and E85, in particular,
22 in California and nationally, is stronger today than it's
23 ever been. We sell three times the amount of Ethanol per
24 station at Propel stations than the national average, so
25 California loves the product and we're doing something

1 right here.

2 A couple things that I want to just close by
3 saying, so everybody I think has now seen that we've
4 survived Vtech and the market is looking much better.
5 What that means for us as a company is that funding is
6 starting to come back into the market. In this first
7 quarter, we received term sheets for \$20 million in new
8 equity funding, and \$25 million of development capital.
9 This is all contingent as match funding against the funds
10 provided by AB 118. So the markets are paying attention
11 and that's -- it's been good for us, people are becoming
12 interested again in the E85 market. We are also moving
13 forward on our development schedule, again, which is
14 great news and, again, we will be opening our next site
15 very soon.

16 So what does this all mean for this proposal?
17 Again, having spent my career in venture capital,
18 investing in clean energy companies, I can tell you the
19 investment markets are watching the decisions that are
20 being made here. Capital will flow toward the places
21 that California is showing to have priorities, and like
22 it or not, what we see here, this clearly is spelling out
23 what the priorities are for the State of California in
24 terms of funding and moving technologies into market.
25 So, you know, I do want to say we believe E85 is a strong

1 product, customers love it, it's a great product for all
2 of California consumers today, but we're having a very
3 tough time explaining to the financial markets why this
4 product that seems so great, from CO₂ reduction, petroleum
5 reduction, the number of vehicles available, and the
6 social equity components of it, why this is the category
7 that is getting cut by 80 percent from historical funding
8 levels, and why on this chart it is the lowest of the
9 categories. So, today I would just like to urge
10 everybody to really think deeply about this and it's our
11 strong recommendation that we return E85 to its historic
12 funding levels, and really put it back on par with other
13 fueling types because, again, from a retailer's
14 perspective who is interested in getting fuels into
15 Consumers' vehicles, E85 is the best fuel in the state in
16 the near term for reducing petroleum and CO₂ emissions.
17 Thank you.

18 MR. PEREZ: Thank you, Matt.

19 COMMISSIONER PETERMAN: Thank you, that was
20 helpful to have your comments. And just to place your
21 comments also in context, it's my understanding that, in
22 terms of the money you received so far to do station
23 development, what percentage of those stations have you
24 developed? And what percentage of that funding have you
25 used?

1 MR. HORTON: We are, from our combined DOE and
2 CEC funding, we're at about -- I think about 40 percent
3 through the --

4 COMMISSIONER PETERMAN: Okay, so we're looking
5 forward to seeing that 60 percent.

6 MR. HORTON: So are we.

7 COMMISSIONER PETERMAN: Okay, great.

8 MR. HORTON: Thanks.

9 MR. PEREZ: Okay. Rebecca Breitenkamp.

10 MS. BREITENKAMP: Good afternoon. My name is
11 Rebecca Breitenkamp and I'm the President of Oberon
12 Fuels. We are a San Diego-based company making
13 dimethylether, or DME, as a cleaner alternative to
14 diesel. So I submitted a document to the public docket,
15 so I just want to briefly highlight the benefits of DME
16 as a fuel, as well as the work that we specifically,
17 Oberon, are doing in the San Diego and Imperial Valley
18 area.

19 So just briefly, DME is a clean burning fuel,
20 it's been used for decades elsewhere in the world, and
21 has gotten traction with some OEMs such as Volvo Trucks,
22 Isuzu, Nissan, Ino, and they've been looking at using
23 DME, especially in the heavy-duty trucking industry. And
24 so the benefits of DME, there's no particulate matter, no
25 sulfur, it contains very low NOx levels, and it's

1 actually an excellent diesel fuel, so it has comparable
2 thermal efficiency as diesel when run in a diesel engine.

3 Another advantage is we can actually use
4 multiple feedstocks, so we can actually -- we need
5 methane and carbon dioxide as our source to produce the
6 fuel so we can use anything from pipeline natural gas to
7 biogas, so looking at agricultural digesters, landfills,
8 wastewater treatment plants, so there's a lot of
9 opportunities to use different feedstocks and it could be
10 either alternative or renewable fuel.

11 So, specifically what we are doing at Oberon,
12 we are building our first production unit right now,
13 Imperial Valley, California, we'll be producing fuel at
14 the end of this year. We are also working on building in
15 parallel a DME engine conversion business, so we are
16 working with the OEMs producing new DME engines, but also
17 looking at building these conversion businesses, as well.
18 So what we are looking at as far as the advantages of our
19 particular process is that, because we can do it on a
20 small scale, so we have these skid mounted modular units,
21 and so we can actually generate transportation fuel on-
22 site where there is a methane source, so such as a dairy
23 farm, or close to the pipeline. Another advantage is
24 that we can take advantage of regional feedstocks. So a
25 lot of times, some of these renewable feedstocks, they

1 don't have large enough volumes to be used in other
2 processes, but because we are a small scale process, we
3 can actually take advantage of these feedstocks that
4 would otherwise not get used.

5 In addition to that, we're building regional
6 markets, so by doing that we're lowering the
7 transportation cost, that reduces the GHG impact on the
8 community. And so what we're asking for from the
9 Commission is inclusion in the upcoming investment
10 proposal and future plans. So DME is actually listed as
11 an allowable fuel under the original Assembly Bills in
12 118 and 109, and so we're asking, by including DME
13 specifically in upcoming grant solicitations, that this
14 would help us as we launch this fuel in the State of
15 California, which would be leading the country in it.
16 Also, looking at just expanding the definition, so we're
17 not asking for additional allocations, we're just asking
18 for actually expansion of the definitions of the current
19 categories.

20 COMMISSIONER PETERMAN: And staff, correct me
21 if I'm wrong, but I believe DME is eligible, but you're
22 the first one to come with an interest in it. Is that
23 correct?

24 MR. MCKINNEY: Sorry, Commissioner, I actually
25 don't recall. Rhett, do you recall what we did there?

1 COMMISSIONER PETERMAN: Uh huh, so happy to
2 have you follow-up with our staff to make sure that you
3 find the definition as inclusive, as it needs to be, and
4 glad to see a company that's interested in doing this
5 type of work, but it is eligible.

6 MS. BREITENKAMP: Wonderful. Thank you so
7 much.

8 MR. PEREZ: Tom Fulks. Is Tom here? Tom
9 Fulks? Okay, we'll go on to the next speaker, Andreas --
10 oh, you've already had Andreas -- Paul Staples, via
11 WebEx.

12 COMMISSIONER PETERMAN: Mr. Staples, are you
13 with us? All right, is Mr. Staples on the line? Paul
14 Staples? We'll give him about 10 seconds.

15 MR. PEREZ: All right, Mr. Staples? Are you
16 there? Why don't we go on to the next speaker and we'll
17 return to Mr. Staples at the end. James Provenzano? Are
18 you there, James?

19 MR. PROVENZANO: Good afternoon. Thank you
20 very much. This is James Provenzano. I'm with Clean Air
21 Now. And I want to thank the CEC staff and also
22 Commissioner Peterman regarding the Investment Plan. The
23 comments I've heard today, and also the fact that the
24 Investment Plan is well balanced, and I think moving
25 forward with the plan helps us move towards cleaner air

1 for all in the State of California, which is what our
2 goal is, is to protect public health from air pollution,
3 the effects on health from air pollution.

4 Some of the comments I've heard about hydrogen
5 fuel cells, it makes me believe that people are unaware
6 of how near term that these technologies really are, and
7 you know, what the South Coast Air Quality Management
8 District is doing with hydrogen fuel cells and the goals
9 of the California Fuel Cell Partnership, and the plans of
10 the OEMs to introduce these vehicles, it is imperative
11 that the CEC continue their support for these
12 technologies as allowing large numbers of zero emission
13 vehicles to be put on the roads here in California. And
14 I think these vehicles are ready to go, and the OEMs are
15 ready to bring them to the California market. And as
16 people look into what Germany is doing, what Japan is
17 doing, what South Korea is doing, what Norway and now
18 Denmark has announced the Hydrogen Highway effort, and
19 Great Britain has a major effort that, by the CEC funding
20 the infrastructure for these vehicles, hopefully one day
21 increasing their funding for buying down the vehicles so
22 people can get into them early on, puts California back
23 into a leadership position and allows especially the
24 domestic manufacturers, especially General Motors that
25 are working on these drive trains, to compete on the

1 world market, and so that we don't have to look elsewhere
2 for product that fulfills a need here. So I think the
3 CEC staff and Commissioner Peterman obviously understand
4 the value of these technologies, it is my hope that that
5 information gets out to the public at large so there is
6 greater support for the technologies and also for the CEC
7 in their support for these technologies, so I just want
8 to thank you for helping carry the torch on this, and
9 your great work, and the money that you bring towards
10 this so it's -- I'm very optimistic of what the future
11 holds for all of us. So thank you very much.

12 MR. PEREZ: Thank you, sir. John Holmes. So,
13 John, are you there? Okay, John, are you there? John
14 Holmes from San Diego Gas & Electric, are you online?
15 Okay, so maybe he's gone. Then I think we'll return to
16 Mr. Paul Staples. Paul, can you hear us? Paul, can you
17 hear us? Paul, if you can hear me, this is Pat Perez of
18 the California Energy Commission, we cannot hear you, but
19 if you can hear us, we'll follow-up with you, or please
20 submit any additional comments you have to our docket and
21 we'll consider any input you have. Okay, with that, let
22 me ask if there's anybody in-house here that has any
23 final remarks or comments, and who did not get an
24 opportunity to provide input today. Anybody out there?
25 Not seeing any, I will turn it back over to the

1 Commissioners for final remarks.

2 COMMISSIONER PETERMAN: I want to make sure
3 that, Charles, at some point, or Pat, please make
4 everyone aware again what our schedule is for the next
5 week or two. Thank you all for participating, I found it
6 to be a very valuable discussion. I mean, I'm heartened
7 because I think it means that we got a lot of things
8 right, and I also think it means there are a lot of
9 things that are still to be determined and look forward
10 to clarifying with all of you going forward about,
11 obviously, where the need is, and how the State can
12 participate.

13 I will say, as with every Advisory meeting I've
14 been to so far, at the end of it now, my head is full and
15 my stomach is empty, so I will not get in the way of us
16 further following up, but I want to say a special thank
17 you to staff for the tremendous work they've done. I
18 mean, as they've been working on this -- yeah --
19 [Applause] -- because they have processed a variety and
20 diversity of comments and tried to reflect them in a plan
21 and, while doing that at the same time as getting out the
22 existing solicitations. And that work doesn't stop. In
23 addition, also, to other duties they have as a part of
24 the Transportation Division here at the Commission. So I
25 am impressed and thankful for their work, they make my

1 job easier. And with that, let me turn it over for any
2 final comments from Chair Weisenmiller.

3 CHAIR WEISENMILLER: I will just echo your
4 comments that certainly appreciate your activities,
5 Commissioner Peterman, in terms of pushing this along,
6 certainly Tim and the staff, generally, and appreciate
7 the feedback from the Advisory Committee and also members
8 of the public. So, thanks.

9 COMMISSIONER PETERMAN: And then final
10 schedule.

11 MR. SMITH: So the final schedule, again, is
12 that we will turn around --

13 [Adjourned at 1:21 P.M.]

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